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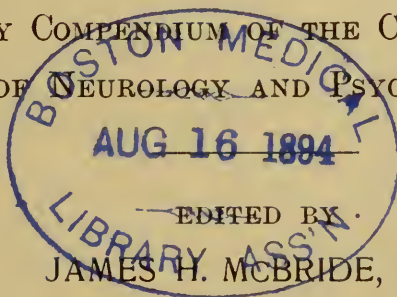


# THE REVIEW

OF

## INSANITY AND NERVOUS DISEASE.

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE  
OF NEUROLOGY AND PSYCHIATRY.



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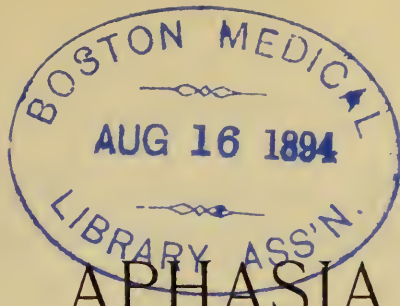
## ERRATA.

Page 40—Third line from bottom, read *alteration* instead of alternation.

Page 43—Tenth line from top, read *myelitic* instead of myslitic.

Page 102—Second line from bottom, read *of* instead of over.

Page 103—Third and fourth lines from top, read *injections* instead of application.



3189

# APHASIA

AND OTHER AFFECTIONS OF SPEECH, IN SOME OF THEIR MEDICO-  
LEGAL RELATIONS, STUDIED LARGELY FROM THE  
STANDPOINT OF LOCALIZATION.

BY CHARLES K. MILLS, M. D.,

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For many years, and especially since Broca in 1861 located the seat of articulate language in the left third frontal convolution, aphasia and other affections of speech from disease of the brain, have received the close attention of the ablest physicians interested in the nervous system and its diseases. For a long time the eyes of these observers and investigators were too intently fixed on the convolution of Broca, and in consequence, advance in the comprehension of the nature of speech and its disorders was much retarded; but their view enlarged; and experiment, clinical study, and well recorded autopsies, soon showed that the faculty of speech could not be limited to a single small centre or area in the motor region of the brain, but that large zones, or a complexity of centres, both on the receptive and the emissive sides of the cerebrum, must necessarily be concerned. Since even the partial recognition of this truth the literature of the pathology and mechanism of speech has been rapidly enriched; and our understanding of aphasia and affections

of speech in general, not long ago clouded by narrow or biased views as to localization, has become clearer and more practical.

The nations speaking the three great languages which dominate the world—English, French, and German—have each contributed a fair share of facts and theories to elucidate the interwoven problems of mind and speech; and every physician practically interested in these problems—for the ends of ordinary diagnosis and treatment, for the purpose of surgical operations, for expert work in the courts or elsewhere—should know something of the published work of the Ogles, Broadbent, Bastian, Bateman, Wilks, Gairdner, Hughlings-Jackson, Ferrier, and Ross; of Hun, Seguin, Wilbur, Amidon, Putnam-Jacobi and Starr; of Broca, Trousseau, Baillarger, Bernard, Falret, Legrand du Saulle and Charcot; of Spamer, Wernicke, Kussmaul, Kahler, Pick, Benedikt, Berlin, and Wilbrand.

In spite of the achievements of these and others, much with reference to the nature of speech remains to be learned, and not a few important points are yet in dispute, but knowledge of the subject is now sufficiently systematized and certain to promise some success in shaping it to such a practical purpose as the solution of questions of mental capacity and competency in those who suffer from speech deprivation or disorder. The medico-legal aspects of aphasia and of other affections of speech have not escaped investigation and discussion, but they have received but little attention from English and American writers, and compared with the immense literature of the general subject of aphasia, but little from the writers of other nations. Much of the work which has been published has been in the

nature of a record, with comment, of particular cases which have come before a court or other tribunal; and in few, if any, of these contributions, has any systematic effort been made to separate the now well recognized forms of aphasia into classes for medico-legal purposes. I will, however, briefly refer to some of the most important contributions to this meagre literature of the jurisprudence of aphasia.

In a few of the valuable papers dealing with the general phenomena and mechanism of speech, important medico-legal points are developed in a casual or incidental manner, as in the writings of J. Hughlings-Jackson, Charcot,<sup>2</sup> Lichtheim,<sup>3</sup> and Ross,<sup>4</sup> and to some of these reference will be made in the course of this article. In the second edition of Bateman's treatise on aphasia, a new chapter on the jurisprudence of aphasia is introduced, in which some original observations are given, and references are made to the work of French and German authors.

Bateman<sup>5</sup> cites some cases of interest. In 1843, for example, a resident of Münden, Hanover, applied to the government for permission to make a will in favor of his wife by signs, and the court acknowledged the validity of the act. Another aphasic for five years discharged the functions of mayor and municipal councilor, by writing his name to necessary documents with his left hand. In the same way he also wrote a holographic will which was sustained. These and other cases are also referred to by Legrand du Saulle. Bateman refers to several cases in which the wills of deaf mutes were recognized as valid by the court, because

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1. Hughlings-Jackson: *Brain*, October, 1878, and July and October, 1879.
  2. Charcot: *Le Prog. Med.* 1884, and *Med. Press and Circ.*, London, 1884.
  3. Lichtheim: *Brain*, January, 1885.
  4. Ross: *Aphasia*, etc., J. and A. Churchill, London, 1887, and *Wood's Medical and Surgical Monographs*, New York, 1890.
  5. Bateman: *On Aphasia*, etc., by Frederic Bateman, M. D., London, J. and A. Churchill, 1890.

it was proved that they understood the contents of the will either through gesture and pantomime alone, or by these and written language combined. He also records the case of a man, 63 years old, who was engaged to be married and was suddenly seized with right hemiplegia and aphasia, and wished to make a will in favor of the lady whom he intended to make his wife. The document was written by one of his medical attendants. The testator's mark was made and the will was attested by witnesses.

He communicated his wishes as follows :

"He made signs for writing materials; his wishes were interpreted by means of signs and then written down on a card. He held up his hand, extended his five fingers, and he was asked if he meant 'thousand,' he bowed assent. He then closed his hand and opened it in the same way, implying ten; this operation was repeated until it amounted to thirty, and then he dropped his arm down. Testator was then asked whether he wished Miss R. to have thirty thousand pounds, and he nodded his head. In order that there might be no mistake about his wishes as to details, he was asked whether Miss R. was to have this sum absolutely; he signified dissent, but on being asked if it was to be hers for life and afterwards revert to his family, he bowed his head."

Unfortunately the testator's mark was made in the middle of the card instead of at the bottom or foot, and so did not satisfy the provisions of the statutes relating to wills, and the testament was therefore refused probate.

Little escapes the novelist, and of the guild of romancers, few have equalled the elder Dumas in the frequent and skilful use of history and science. In the "Count

of Monte Christo" is an interview with a motor aphasic which might have answered as testimony in court in a case in which the question was that of testamentary capacity. The old Bonapartist, Noirtier, paralyzed and profoundly aphasic, angered at his son and daughter-in-law, determines to change his will. His son, his granddaughter, and his old servant, could understand and communicate with him through an arranged system of signs—by his closing his eyes for "yes," by winking them when he meant "no," and when he had some desire or feeling to express, by looking upwards. He signifies his desire for a notary, by indicating to his granddaughter, who recites to him all the letters of the alphabet, that he wishes, "n" and "o" in succession, then with a dictionary he picks out the word "notary." The notary at first refuses to incur the responsibility of making a will for one whose wishes he may not be able to understand, but having been shown that the aphasic does understand what is said to him and can communicate by pantomime, he becomes interested in drawing up the legal document, and asks for a brother notary to be brought, in order that the will if contested may have the greatest possible evidence of its authenticity. The two notaries read the formal copy of the will, and then test Noirtier by much the same method as Bateman relates was employed in the case above cited. Several sums are named before the aphasic, who signals "no" until the question is asked, "Do you possess 900,000 francs?" In answer to this he closes his eyes in assent. He finally succeeds in making a will, of the validity of which the notaries are thoroughly satisfied, although other characters in the story are not equally satisfied with its contents.

At the meeting of the British Medical Association, at Leeds August, 1889, in a discussion of the jurisprudence of aphasia introduced by Dr. Bateman, Dr. Drysdale, of London, cited the case of a celebrated civil engineer who had right motor paralysis and aphasia, but who wrote his own checks, copying them from a former signature of his own, and who for many years was a senior partner of the firm. His partners, however, did all the work. In this case the gentleman retained enough intelligence to play whist with, the cards spread out before him, and left a will which was not contested. Professor Gairdner at a former meeting of the British Medical Association, had mentioned the case of a Scottish judge affected with aphasia, who had continued in office for some years, and sat on his bench while suffering from a form of this malady.<sup>1</sup>

Légrand du Saulle,<sup>2</sup> in a course of lectures delivered at L'École Pratique de Paris, in 1868, discussed, among other things, the testamentary capacity of aphasics, quoting instances of the serious difficulties which may arise in making a will.

At La Salpêtrière Hospital, in 1882, Légrand du Saulle<sup>3</sup> delivered another course of lectures upon "Aphasia and phasics," considered from various points of view. These lectures, twelve in all, were also published in the *Gazette des Hopitaux*, and about one half of them dealt with matter which either directly or indirectly bears upon the jurispru-

1. New York Med. Rec., September 28, 1889, p. 360.

2. Légrand du Saulle: *Gazette des Hopitaux*. June and July, 1868.

3. Légrand du Saulle: *Gaz. des Hop.*, Paris, Vol. LV, 1882.

Légrand du Saulle in this series of lectures refers in several places to other French writers on the mental and medico-legal relations of aphasics. The chief of these references are as follows:

Ch. Sazie: *Troubles intellectuels dans L'aphasie*. Th., Paris, 1879.

Finance: *Etat mentale des aphasiques. Considérations médico-legales*, Th., Paris, 1878.

Légrand du Saulle: *Étude médico-legale sur l'interdiction des aliénés et sur le conseil judiciaire*. Paris, 1881, p. 212.

J. Lefort: *Remarques sur l'interdiction des aphasiques*. (Bulletin de la Société de médecine de France.)

dence of aphasia. To some of his conclusions I will briefly refer. He holds that when the lesion of aphasia is confined exclusively to the left third frontal convolution, intellectual disturbance is slight; but according as it has extended to the motor zone, or to the prefrontal region, will paralysis, or disorders of the intelligence appear. He shows that most aphasics have a certain measure of dementia as well as paralysis, but the intellectual disorder observed in aphasics is most variable, sometimes not interfering with the important events of life, at others so wrecking the intellectual faculties as to cause mental incapacity and irresponsibility. The general disorders consist of excitement or depression; the partial affections, of defect of attention, incoherence, hallucinations, or delirious conceptions. Impatience and anger are common among aphasics, whose moods are very changeable. The want of attention is one of the most marked traits of aphasia. Memory and recollection are less alert, and some aphasics exhibit decided loss of memory. Legrand du Saulle insists that aphasia is compatible with intelligence, but that this is always more or less weakened by the loss of language. If the brain lesions are extended and multiple, pronounced weakening, and even abolition of memory may be observed. Incoherence of ideas when present is not by any means on a par with incoherence of language. To lesions of the prefrontal regions he relates the loss of memory and attention, the incoherence, hallucinations, and delirium—probably only a partial truth. He speaks of hallucinations as frequent among aphasics, the most common being those of hearing and sight; sometimes these hallucinations are of a character that may lead to a crime, or may make the aphasic suspicious of others.

Legrand du Saulle admits three categories of aphasics, those in whom intelligence is intact, but slightly touched; those in whom it is manifestly changed, and those in whom it is entirely abolished. A physician called to give an opinion on an aphasic should give attention to the smallest particulars as to his state. He has need also of all of his care and knowledge in scrupulously reviewing all the different forms of language employed by an aphasic. It is always well to make the patient count, to ask his age, to test him with money, etc. Legrand du Saulle gives instructive cases bearing upon these methods of examination.

He further considers in different lectures some of the most important questions of a medico-legal character presented by aphasics—their obstinacy to suggestions, their tendencies at times to injustice to their families, their comparatively rare implication in criminal offenses, their responsibility when accused of crime, the necessity at times of restraining them in asylums and hospitals, the principles and practice of the law with reference to their interdiction, their right to enter into marriages, and their testamentary capacity. His lectures contain many facts and suggestions, observations of cases, and valuable references to French law—but in the main they deal with aphasia and aphasics from a general standpoint, and not with reference to the special changes in mental integrity, which depend sometimes upon the varying sites of lesions.

Gallard<sup>1</sup> in a volume of clinical lectures, delivered at La Pitié, has one chapter on aphasia and aphasics discussed from the medico-legal point of view. He recounts, after the manner of Legrand du Saulle, points of French law in con-

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1. Gallard: *Clinique médicale de la Pitié* par M. le docteur Gallard analyzed in *le Journal de Médecine et de Chirurgie Pratiques*, Vol. xlviii, p. 377-380.

nection with aphasics. The conclusions arrived at with reference to the interdiction of aphasics are: (1) If the intelligence of the aphasic is completely obliterated, or, if in preserving his lucidity he cannot manifest it by written language, pantomime, or speech, he should be interdicted; (2) if the intelligence of the aphasic not being completely alienated, has not all its brightness, and can only be incompletely manifested, he should be provided with a judicial counsel; (3) if the aphasic possesses his intelligence, and if he can manifest it sufficiently, whether by word, by writing, or by signs, he has no need of judicial protection, and should be free to manage himself and his affairs.

Bateman refers to a communication by Professor Jolly, read at a Congress of German alienists, held at Carlsruhe, on the capacity of aphasic persons to testate, with a critical analysis of the views of German medical jurists upon this point—but I have not been able to obtain the original paper.

The Parish will case is perhaps the most famous medico-legal case in this country in which the question of the mental power of an aphasic was the main point at issue. Henry Parish made his first will when 54 years of age, and the next year had a slight apoplectic attack from which he soon recovered. Seven years after making his will he had another severe apoplexy which left him for the rest of his life, about seven years in all, paralyzed in his right limbs, and with the power of articulation lost. After this second seizure he also had at intervals epileptic fits. The codicils to his will were contested. The first was made about six weeks and executed about five months after the severe apoplectic attack; about four years later, a second codicil, and about five years after this, a third was made

The surrogate admitted the first codicil and excluded the others. The supreme court and the court of appeals decided against all three. The trial of this case was a notable one, and eminent physicians were employed on both sides. Dr. Isaac Ray, who was one of the medical experts, testified in opposition to Mr. Parish's testamentary capacity, and has contributed a valuable paper on the case.<sup>1</sup>

The William T. Beven case is another interesting American case, reported by Dr. C. H. Hughes.<sup>2</sup> Mr. Beven had been stricken with right hemiplegia and aphasia, probably due to embolism, as he had a cardiac valvular lesion. He became defendant in a suit for the recovery of money on a deed of trust, signed by himself with his left hand when he was aphasic, four months after his first apoplectic seizure, in 1873. This deed of trust had been made in fulfilment of a promise and purpose entertained before his attack. It was against the interest of members of his family that this deed should be allowed to stand, and evidence was adduced to prove that he was insane at the time that the deed of trust was made. Just before, and about this time, his two sisters and brothers-in-law testified that he did certain things which they regarded as evidences of insanity, such as wiping his nose on a napkin, bowing to pictures in the parlor, unbuttoning his drawers when ladies were in the room, striking his mother with a stick, becoming violent and angry when the battery was applied, and making grimaces before the glass. Dr. Hughes, three years after the attack, found that he was suffering from incomplete paralysis of motion on the right side and general anaesthesia; that he understood oral signs, and tardily and imperfectly written

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1. Ray: Contributions to Mental Pathology.

2. Hughes: Amer. Jour. Insanity, Vol. xxxv, Jan., 1879, p. 410.

ones; that he recognized the doctor's name and wrote his own name and that of his attorney and of the doctor; that he either had, or feigned, defective vision, and also impaired hearing in the left ear. He had had three paralytic strokes altogether, but had grown steadily better. Dr. Hughes analyzed the various facts which were brought forward as evidences of his insanity and decided in favor of his competency.

The recorder of this case, Dr. Hughes,<sup>1</sup> has also written a paper—the only American contribution of the kind of which I have knowledge, although others may have been published—on the medico-legal aspect of cerebral localization and aphasia. This article reviews the varieties of aphasia with some consideration of the lesions causing them, and also considers to some extent the effect of simple and complicated aphasia on the judging, comparing, expressing, and other faculties of the mind, citing various authorities in support of his positions. He refers to a number of the tests of an aphasic's mental integrity which have been suggested. Affections of speech, not aphasias, are also to some extent considered. The Parish case and Beven case, and also the Lawler case, which has been put on record by Bartholow, are referred to by the writer. Problems arising from a consideration of the different forms of motor and sensory aphasia are not discussed.

Ray,<sup>2</sup> in his text book, as well as in the monograph on the Parish case, has given some attention to the medical jurisprudence of aphasia, relating several interesting cases.

The Fillmore will case, reported by Dr. Landon C. Gray,<sup>3</sup> is one which has attained considerable celebrity in this

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1. Hughes: *Alienist and Neurologist*, Vol. 1, April and July, 1880.

2. Ray: *Medical Jurisprudence of Insanity*.

3. Gray: *American Jour. Neurology and Psychiatry*, Vol. III, p. 549.

country, both because of its intrinsic interest, and of the distinguished position of the parties concerned. Mrs. Caroline C. Fillmore, widow of the ex-President of the United States, in 1877, three years after the latter's death, began to show changes in her character, soon becoming coarse, profane, suspicious, and delusional. She was stricken with hemiplegia. She made two wills, the first eighteen months after the changes in her character were first noted, and nine months before the paralysis; the second will or codicil was made five months before this stroke. She developed a form of aphasia and showed not only this speech disturbance, but a combination of symptoms of general mental impairment. Dr. Gray and others testified that she was insane and incompetent.

It will be seen from this hasty glance at the scanty literature of the subject, that the medico-legal questions which may arise in connection with the study of aphasics are somewhat numerous, although they are by no means all embraced in this review. They include many of those which the insane also present for solution, but with others especially belonging to the aphasias. At the outset it should be borne in mind that we are not dealing with some clearly defined entity called "aphasia." It is not possible to fix upon any general standard of capacity or responsibility for one suffering from an affection simply labeled "aphasia." Even correctly labeling an individual as insane does not decide as to his capacity to have certain privileges, or to do, or not to do certain acts, for example, to have his personal liberty, or the control of his estate, to get married, or to make a will. In a practical, as well as in a philosophical sense, questions of sanity and insanity are relative, and so likewise are those presented by aphasics. They will depend not only on the form of the disorder, but also upon its degree and special characteristics in a particular case.

"The affections of speech met with are very different in degree and kind," says Hughlings-Jackson,<sup>1</sup> "for the simple reason that the exact position of disease in the brain and its gravity differ in different cases; different amounts of nervous arrangements in different portions are destroyed with different rapidity in different persons. There is, then, no single, well defined 'entity'—loss of speech, or aphasia—and thus, to state the matter for a particular practical purpose, such a question as, 'Can an aphasic make a will?' cannot be answered any more than the question, 'Will a piece of string reach across this room?' can be answered. The question should be, 'Can this or that aphasic person make a will?'"

These medico-legal questions may be either criminal or civil, although they are much more frequently the latter. Legrand du Saulle says truly that it is rare for aphasics to be implicated in major crimes; their habitual infirmity to a certain extent saving them from these. Aphasics, however, as all who have had to do with them know, are much given to impatience and anger; their moods are uncertain and changeable, and occasionally dangerous. They have been charged with thefts, and have been implicated in other crimes. One remarkable case is referred to by Legrand du Saulle. An aphasic and hemiplegic was charged with killing his wife; and the case had not only this criminal aspect, but later a civil question, that of the disposal of his and of his wife's property arose. The parties had been married without a contract, and had no children, and each had left to the survivor the whole of his or her property. Attempts were made to nullify the donation of the wife on account of ingratitude, as shown by the assassination, but against this

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1. Jackson: *Brain*, October, 1878, p. 314.

it was urged as the man had been pronounced irresponsible he could not be an ingrate. In the end, however, the donation was annulled and went to the wife's heirs.

Evidently whether or not an aphasic should be exonerated from the consequences of a crime, is a vital matter, and in some cases should be decided on the same principles that would govern the decision in a case of alleged insanity, but these might not always suffice, and the presence of the aphasia, and its form, might need to be particularly considered in arriving at a correct conclusion. Many aphasics suffer to a greater or less extent from various special forms of mental diseases, the degree of which may be dependent somewhat on the location of the lesion causing the speech disturbance, or on the extent to which the aphasic lesion has extended beyond the speech centres, or, again, it may be entirely independent of the aphasia. The lesion which causes aphasia, as is well known, in addition usually produces a certain, and it may be a large degree of paralysis, and less frequently also various sensory disorders. The greater the accompanying disease, even though it be of physical type, the more likely is it that the mentality of the patient will suffer, although this statement must be qualified somewhat by the direction which the lesion has taken. M. Sazie tells of an aphasic who had anæsthesia of his limbs, and who believed that his legs had been amputated, and Legrand du Saulle speaks of monomania, melancholia, hypochondria, and of impulses to drunkenness, suicide, or even homicide among aphasics; everyone who has had much experience with aphasics can recall such cases, but we must remember, with the above author, that these are disorders occurring among aphasics, not a part of the aphasia. Recognizing the importance of such facts as these,

and remembering also that aphasics who are not in any just sense insane, are often greatly misunderstood, it follows that the committal of an aphasic to an insane asylum may sometimes be a serious question for decision, and might eventually lead to a criminal or civil suit.

Kussmaul<sup>1</sup> refers to the fact the word-deaf, possessing at the same time the ability to express themselves in words, but misplacing and often distorting them, leave the impression that they are crazed, and he warns the observer to avoid this error, and also the greater one of regarding the patient as both deaf and demented. He cites several interesting cases—one reported by Baillarger, who demonstrated that a woman who had been regarded as both deaf and demented, was really neither the one nor the other; another of Wernicke's of a paraphasic patient at first supposed to be deaf and crazy.

An interesting case of aphasia complicated with insanity has been reported by Bancroft.<sup>2</sup> This patient was an inmate of the New Hampshire Asylum for the Insane. In 1872, he had an attack of loss of vision and right sided numbness; in 1876, he had another attack which caused indistinctness of articulation, and some disorder of vision; and a week later he was seized with loss of speech, marked mental confusion, and apparently a temporary loss of vision. His mind, it is recorded, was filled with all sorts of insane fancies. The details of the case are well given; it is one of word-deafness, with also some word-blindness, and paraphasia, although the writer is evidently not familiar with the varieties of aphasia. After some months the patient was discharged and sent home, but in a short time was readmitted to the

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1. Kussmaul: Ziemssen's Cycl. Pract. Med., American ed., Vol. XIV, p. 773.

2. Bancroft: Boston Med. & Med. Surg. Jour., Vol. CIV, No. 21, May 26, 1881, p. 483.

asylum; because when at home he developed all manner of eccentricities, and insisted on doing all things as he chose, even using threats of violence. Nearly two years later he died in the asylum, valvular disease of the heart having been in the meantime discovered. An autopsy was made, but for localization purposes is not well detailed. The third frontal convolutions were untouched; but lesions are described as present in the anterior portion of the middle lobe of both hemispheres, but much smaller on the left than on the right. Doubtless this patient was properly committed; but the effects of his sensory aphasia on his mental state may not have been fully considered.

Among the civil questions which arise in connection with aphasics perhaps first in importance is that of testamentary capacity, and such allied questions as their competency to make deeds of trust or conveyance, to sign powers of attorney, promissory notes, due bills or checks, to make contracts, or to manage any business involving speaking or writing. As has been already shown, attacks on their competency to make wills or deeds of trust have given rise to some of the most interesting legal contests that have been fought in this or other countries.

The marriage of aphasics has been considered by Legrand du Saulle. According to the French law—and the laws of other nations are probably much the same—dementia is the only thing that interdicts marriage; the presence of aphasia is not considered sufficient reason to prevent it. Signs are recognized as available to signify consent; but it may be necessary to decide as to the true signification of the pantomime and gestures employed by an aphasic. The question is, whether the husband or wife at the time of the marriage had a sufficient degree of intelligence to realize

the act, and whether it was of his or her own will. An interesting case is given of an aged aphasic and hemiplegic widow, who, having fallen out with her daughter, contracted a second marriage against the wishes of her family.

I was once called to testify before a register of wills regarding a man whom I had seen in consultation several weeks before his death. This man had lived for many years with a woman who was not his wife, but by whom he had several children. By many he was supposed to be legally married to the woman. He was stricken with right sided paralysis and partial aphasia; but I found him capable of answering questions, and of reading a little consecutively. I saw him twice before his death, and between my two visits he was married to the woman with whom he had been living. The granting of letters of administration to his wife was resisted by some of his relatives, who claimed that undue influence had been used, and also that he was not in a state of mind to know what he was doing. The main question was whether the man knew what he was doing when he was married, and whether he showed this by his speech and acts. After hearing the testimony the register gave letters of administration to the wife and the case was dropped.

The question of interdiction may come up for decision when an aphasic is alleged to be insane; and the decision may result as in the case of the insane not aphasic, in the patient going to an insane hospital, or of being put simply under the control of a committee or of a guardian.

Other questions may be of the alleged malingering of deafness or deaf mutism by a criminal, a soldier, or an

employe wishing to shirk duty. An apparent aphasia may of course also be one of the phases of an alleged hysteria.

Occasionally aphasia, the result of traumatism, may have a decided medico-legal importance, as in litigation because of injuries resulting among other things in aphasias; and again, the ability of an aphasic who has been injured with criminal intent, to recognize an alleged assailant might be questioned.

In various well known forms of insanity, as paretic dementia, monomania, katatonia, confusional insanity, mania or melancholia, the peculiarities of the speech disorders belonging to the affections may assist in the early or late diagnosis of such cases, and may thus have a bearing upon such legal matters as necessity of restraint, relief from responsibility, or discharge after recovery.

It is not possible to establish fixed rules by which the capacity, competency, or responsibility of aphasics can be measured. This in given cases is largely a matter for judicial decision and technical interpretation of the law. In all civilized countries, and in different states of a country like our own, the administration of the law with reference to such matters as wills, deeds of trust, civil contracts, restraint in asylums, and particular crimes, whether relating to aphasics or others, is based upon precedents, and upon legislative and other enactments. These may sometimes, or in some particulars, be at variance with what is just and equitable from a medical or lay point of view. The object of a paper like the present is to show the methods of gauging the mental status of those affected with disorders of speech, which mental status, from the medical point of view, would be the criterion of competency and

responsibility; but such studies might lead us to the conclusion that a testator in a certain case was competent to make a valid will, although his testament might not be sustained by a court because of a technical violation—whether due or not to the patient's disorder—of a provision of the law.

In the case already referred to, cited by Bateman, an aphasic evidently knew what he wished to do, and his meaning was evidently correctly interpreted by others, but because he had made his mark in the middle of the paper written for him instead of in the position called for by the statute, the instrument was held as not properly executed and probate was refused. In this case conjoined medical and legal investigation indicated the just course, which, however, could not be followed because of a peculiar statute.

The French law recognizes three kinds of wills—that by public act before notaries and witnesses; the holographic will, or that written by the testator's own hand unguided by another; and the secret will (*testament mystique*.) The secret will may be written entirely by the hand of the testator like the holographic will, or be written by another person and only signed by him. It is then given in charge of a notary in presence of a stated number of witnesses, who countersign the envelope, and close and seal it; and upon this the testator writes, or causes to be written, that this is his will duly signed by him. Thus if the writing and signing of this will is illegible or difficult to read, this act acquires the value even of a holographic will. (Gallard.)

Under even these, or similar laws, an aphasic who, medically speaking, might be entirely competent to do certain acts, as could be determined by careful medical examination, would be shut out from carrying out his own recognizable wishes.

Even expressive and correct pantomime would not suffice in such a case. Cases of this kind are mentioned by Legrand du Saulle and others.

I am not, however, concerned in this paper with the application of the facts of science to exact statutes and decisions, but rather with the consideration of the various degrees of preservation of mental integrity by those suffering from aphasia and other affections of speech, and the discussion of the direct or indirect bearing upon various medico-legal questions of such affections.

It is not written solely for alienists and neurologists, but for all who may be interested in the problems with which it deals; still it will be necessary to take for granted a considerable knowledge of aphasia and other speech disturbances, or otherwise the article would be extended to extreme length, and the special subject for consideration would be lost in a labyrinth of explanations. It will be necessary, however, at the risk of being too elementary for some of my readers, to define certain terms and to give a few of the most important facts with a reference to the nature and mechanism of speech and its disorders, and also regarding the sites of lesions producing aphasias and infra-cortical speech defects, in order to make clear the subsequent treatment of the subject which will be largely from the standpoint of localization. While it is impossible to make explicit statements with reference to the mental status—or legal status which is sometimes a very different matter—of aphasics, basing such statements upon the location of a lesion in a certain centre, zone, or commissure, something can be done in this direction, and one object at least, is to show how far capacity and competency may be influenced by the site of an aphasia-producing lesion.

Before the term aphasia was fully engrafted upon medical nomenclature, and to some extent since, numerous other terms have been used to describe disorders of speech from cerebral disease. *Alalia* was employed by Lordat in the same general sense afterwards accorded to aphasia, but it is now not used or restricted to the meaning given it by Kussmaul, that is, an entire inability to utter articulate sounds, ranking it under the heads of losses and defects of enunciation. *Aphemia* has also been used by Broca and others for cerebral speech disturbances in general. Ross still uses it to describe the commonest form of motor aphasia, the loss of the power of communicating thought by articulate words; but Bastian has suggested that aphemia be confined in its definition to defects of speech from lesions of those fibres which connect the motor, or as he would say "kinæsthetic" centres, of the cerebrum, with the nuclei of the bulb. McLane Hamilton has suggested *asemasia*, which means an inability to communicate by signs or language, and etymologically this is one of the best names to describe the affections of speech, writing and pantomime, whether loss or defect, from disease of the brain; but as Hughlings-Jackson has said, it is too late to displace the word aphasia, which will be used in this paper in its commonly accepted and general sense to indicate cerebral loss or defects both in language and signs.

Formerly the terms *ataxic aphasia*, and *amnesic aphasia* were employed almost universally, and these expressions are retained by high authorities. Ataxic aphasia has been used to describe the aphasia of common type resulting from lesions of Broca's convolution and the immediately adjacent region, on the supposition that the affection of speech is an

inability or incapacity for the motor co-ordination of words ; but as it is a matter of dispute whether the affection should not be regarded as paralytic, or even sensory, rather than ataxic, it is best not to continue the use of this expression. Amnesia is loss of memory, and amnesic aphasia is the term which has been applied to those affections of speech which are the result of lesions on the sensory, or receptive side of the brain. Kussmaul defines amnesic aphasia as the incapacity for the recollection of words as acoustic aggregates of sound ; but objections have been also urged to this term based upon theoretical considerations.

Disregarding for the present differences of opinion of almost equally high authorities, the best practical subdivision of the aphasias is into *sensory* or *receptive*, and *motor* or *emissive*. Bastian holds that all forms of aphasia are in effect sensory regarding the centres for speech and writing usually termed motor, as kinæsthetic, that is, sensory centres concerned with the registration of muscular sense impressions derived in the one case from the organs of articulation, and in the other from those concerned in writing. In a paper concerned with the practical application of our knowledge of aphasias, it will only be necessary to understand the signification in which the terms selected are used, and without committing ourselves positively to theory on the subject, we will speak of motor aphasia and sensory aphasia with the same meaning as such authorities as Kussmaul, Charcot, Broadbent and Ross. Under the general term sensory aphasia I will therefore include those affections of speech which are dependent upon disease located in the receiving part of the brain. Sensory aphasia has, therefore, necessarily several varieties, as *word-deafness*, and *word-blindness*, terms

which define themselves, and *apraxia* sometimes called soul-blindness, mind-blindness, or object-blindness. *Apraxia*—an important form of brain disease from a medico-legal standpoint—is defined by Kussmaul as an affection in which “the memory for the uses of things is lost, as well as the understanding for the signs by which the things are expressed.”

“For this general symptom of inability to recognize the use or import of an object,” says Starr,<sup>1</sup> “the term *apraxia* is now employed. And since *apraxia* is a symptom which is very frequently associated with aphasia and which, in fact, may lie at the basis of the aphasia, it should always be looked for in a patient. To test for *apraxia* it is only necessary to present various objects to a person in various ways and notice whether he gives evidence of recognition. Have him watched by his friends, and they will be able to tell whether he still chooses his articles of food at the table intelligently; whether he still knows how to put on his clothes, to use various toilet articles, to sew, knit, or embroider if the patient is a lady, to admire pictures or flowers, or perfumes, as before the illness began. The patient may, or may not be able to name these objects; that, at present, is not the question. But it is evident that the subject awakens an idea in the mind.”

Motor aphasia includes the common form of disorder of speech sometimes known as Broca's aphasia, or ataxic aphasia, and in addition *agraphia*, or loss of the power of writing when this is due to disease of the graphic centres or tracts in the motor cortex. *Amimia* may be regarded as a variety of motor aphasia in which the patient has lost the

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1. Starr: N. Y. Medical Record, October 27, 1888.

power of expressing his thoughts by sign or pantomime. This, however, may be due to disease either on the sensory or on the motor side of the brain. It is usually a part, but a very important part, of speech and graphic aphasia, and a consideration of pantomimic speech should receive careful and close attention from those engaged in studying the subject for medico-legal purposes.

Besides the varieties of aphasia resulting from lesions affecting only, or chiefly, cortical *centres* of speech, on whichever side of the brain these may be situated, other affections must result from the breaking through of the commissures or lines of connection between the various centres. These give us what are known in general terms as *paraphasias* or *conduction aphasias*, which may be of as many types as there are commissures. Sensory and motor centres and commissures may all be affected at the same time, and this gives the *total aphasia* of some writers, or what is perhaps better called by Ross, *combined sensory and motor aphasia*.

Other terms in use are those descriptive of the peculiarities of symptomatology exhibited by the different varieties of aphasia to which reference has been made—thus we have alexia, dyslexia, paralexia and paramimia. Some of the symptoms thus designated may be produced by either sensory, motor or conduction disease, or by combinations of these. *Alexia* is abolition of the power of reading, as *agraphia* is of that of writing; *dyslexia* refers to difficulty or fatigue in reading; *paralexia* to the misuse by transposition or substitution of either syllables or words, while *paramimia* is the misuse of signs or pantomime.

[TO BE CONTINUED.]

## TRANSLATORS.

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ITALIAN.

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## NEUROLOGICAL.

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### ANATOMY AND PHYSIOLOGY.

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#### OBSERVATIONS ON THE KNEE REFLEX IN TABES CERVICALIS.

—The tendon reflex centre Eichhorst demoninates “Westphal’s point or centre.” The reflex is abolished when the degenerative process reaches this centre, whether from above or below. Eichhorst has observed a case of tabes cervicalis, in which Westphal’s centre was intact, although the knee-jerk was absent. In this case, extensive degenerative neuritis of both sciatic nerves was found, thus destroying the reflex arc.—*Deutsche Medic. Wochensch.*, No. 23, 1891.

G. J. KAUMHEIMER.

SECONDARY DEGENERATION AFTER MOTOR CENTRE EXTIRPATION.—Dr. Sandmeyer (“*La Trib. Med.*,” May 21, 1891) concludes from recent experiments that unilateral extirpation of the motor centres always results in bilateral spinal degeneration. In contrast with Marchi and Algeri he finds that the direct pyramidal fasciculus does not degenerate.

J. G. KIERNAN.

ANAL REFLEX.—Dr. Rossolimo, of Moscow, read an article upon this subject before the Congress of Russian Physicians at Moscow, in January, 1891. From experiments upon dogs he concludes that the centre for this reflex is in that segment of the cord corresponding to the third sacral root. He finds this reflex augmented in neurasthenia and in myelitis located high up in the cord. It is diminished in multiple neuritis involving the sacral plexus, and also in tabes.—(*Neurol. Centralblatt*, No. 9, 1891.)

C. VENN.

CEREBELLAR FUNCTIONS.—From the study of several cases Doursont (*Annales Medico-Psych.*, May, June, 1891,) concludes that from clinical and anatomo-pathological facts it seems certain that the cerebellum can originate and control movements, otherwise its functions cannot be defined. Increase in volume of the cerebellum is not necessarily an evidence of increased power in equilibration, since hypertrophy and atrophy lead equally to locomotor insufficiency. These observations are decidedly destitute of a logical analysis. Pathological hypertrophy and atrophy are both diseases likely to occasion functional disorder.

J. G. KIERNAN.

RESULTS OF LATER INVESTIGATIONS ON THE FINER ANATOMY OF THE CENTRAL NERVOUS SYSTEM.—These investigations were inaugurated by the labors of Golgi, continued by Ramón y Cajál and Koelliker, as well as His, Retzius, Nansen and Biederman:

1. The axis cylinder of *all* nerve fibres is connected at some point with a cell, which must be considered its point of origin, the cylinder having its embryological origin therein and developing centripetally as well as peripherally from it.

2. The termination of all axis cylinders, both central and peripheral, takes the form of a branching network of fibres (so-called "nerve tree" of R. y Cajál and Koelliker). Some investigators hold that these nerve trees anastomose with each other (Golgi), while others hold that they do not anastomose (R. y Cajál, Koelliker, His, Nansen, Retzius), and that the transfer of action from one nerve to another is an "actio in distans."

3. Golgi has discovered that the axis cylinders may have lateral branches. Cajál and Koelliker have demonstrated them everywhere in the central nervous system. R. y Cajál

describes the course in the posterior roots as follows: On entering the cord each fibre divides in a T shape, one branch running up, the other down the cord. From these longitudinal fibres, lateral branches enter the gray substance at rather regular intervals, there to break up into nerve trees.

4. Accordingly, a nervous element (W. proposes the name "neuron") consists of a nerve cell, the fibres proceeding therefrom, the lateral branches and the nerve tree.

5. According to the undisputed statement of Golgi, these neurons are either long or short. The former connect the periphery with the centre, or distant parts of the central organs, the latter connect contiguous points.

6. The nerve cells in the higher animals show, besides the nerve fibres, a greater or lesser number of protoplasmic prolongations. Authors differ in regard to their functions, Golgi and his pupils believing their main office to be nutritive, while R. y Cajál and others attribute nervous functions to them.

7. The neuroglia is composed of two varieties of elements, the ependymal cells and the glia cells. Cajál and Lenhossek derive the latter from the former. Both forms have processes, which intermingle, but do not anastomose. The occurrence of true connective tissue in the central nervous system is in doubt.—*Prof. Waldeyer, Berlin. Klin. Wochensch.*, No. 28, 1891.

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G. J. KAUMHEIMER.

INFLUENCE OF CERTAIN REFLEXES ON THE CIRCULATION OF THE BRAIN.—Dr. Carl Laker has found insufflation of air into the tympanic cavity, of great value in fainting spells. This is especially true of Kessel's method, in which the ear is reached by a special tube through the mouth. He has used

it in a number of cases of fainting before and during small operations on the ear, also in fainting without special cause.

— *Wien. Med. Presse*, No. 25, 1891.

G. J. KAUMHEIMER.

CARDIAC RESPIRATORY INHIBITION OF BROWN-SÉQUARD.—Prof. Arrigo Tamassia, *Riv. Sperimentale* XVI., Fac. 1 and 2, 1891, publishes an experimental research to test the question whether instantaneous death can really be produced under the conditions described by Brown-Séquard when speaking of the inhibitory action on the heart and respiration by blows and injuries in the region of the neck. The author sums up as follows: 1st. In the higher animals (dogs and rabbits) the inhibitory action on the heart and on the lungs, claimed by Brown-Séquard as consequent to irritation of the skin in the anterior cervical region, does not cause instantaneous death or any serious permanent morbid phenomena.

2nd. Cases of death, when they occur, can be explained better by asphyxia, disturbances of the cerebral circulation, or by lesions or commotions in the nervous centres, than by such inhibition.

3d. Profound transient functional disturbances, such as depression of the cardiac and respiratory activity, may follow irritation of the anterior portions of the neck and the parts adjacent, but these have their origin in many morbid causes induced by said compression or irritation.

4th. The analgesia from inhibition from such irritations may be considered as a subordinate phenomenon and may be explained without invoking it.

5th. In man there may occur, in consequence of such violence, phenomena of psychic depression, due to the sud-

den diminution of the cardiac circulatory activity and these injuries may thus acquire a certain forensic importance without being themselves sufficient to cause death.

H. M. BANNISTER.

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## PATHOLOGY AND SYMPTOMATOLOGY.

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IDIOPATHIC TETANY.—Prof. M. Bernhardt calls attention to the great variety of this disease in Berlin and in fact throughout northern Germany. By far the greatest number of cases have been observed in Vienna, and at Heidelberg and Freiburg in southern Germany. Moebius has not seen a case at Leipzig in 14 years. Jaksch has seen very few at Prague. Weinberger, physician to the shoemakers' union of Vienna for many years, has not seen a case in a person fresh from the country, although one-half the patients suffering from tetany are shoemakers. Stewart, in reporting a case in 1889, stated that it was the sixth case published in America. Tetany forms 7-10 per cent. of all cases at the Vienna dispensary for nervous diseases; hardly 1-10 per cent. of all cases in Mendel's poliklinik at Berlin. Bernhardt reports 3 cases found in Berlin.—*Berlin. Klin. Wochensch.*, No. 26, 1891.

G. J. KAUMHEIMER.

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SPINA BIFIDA OCCULTA AND HYPERTRICHOSIS LUMBALIS.—Dr. G. Joachimsthal calls attention to the occurrence of concealed spina bifida in patients showing an abnormal growth of hair on the back. His own is the eighth case reported, and was also the subject of bilateral congenital dislocation of the hips. This condition seems to be frequently associated with other deformities. Sonnenburg found three nipples; v. Recklinghausen, Bergmann and Brunner, clubfoot; Fischer

syndaetylism in these subjects. Ornstein believes the lumbar hypertrichosis to be due to an atavistic caudal rudiment. Bartels also attributes it to atavism, while Virchow classes it among the *nævi pilosi* due to a local inflammatory action. Recklinghausen believes it to be a hyperplasia. We are not able to state the exact percentage in which the spinal defect is associated with an increased hairy growth as in Recklinghausen's case the cleft in the vertebral arch was very narrow and this is the only case in which an autopsy was held.—*Berlin. Klin. Wochensch.*, No. 22, 1891.

G. J. KAUMHEIMER.

NERVE CHANGES IN ADDISON'S DISEASE.—Flexner, of Heidelberg, has examined the nerves in two cases. Changes in the semilunar ganglion and sympathetic nerve up into the neck were found, consisting mainly of proliferation of the connective tissue, accumulations of round cells and thickening of the vessel walls. The ganglion cell and nerve fibres were degenerated. Similar changes were found in the splanchnic nerves, as well as in the spinal ganglia and posterior roots. The fresh spinal cord showed no changes, although the hardened cord showed peculiar discolorations, the nature of which was not cleared up on microscopic examination. The peripheral nerves and vagi showed degeneration of their sensory fibres.—*Berlin. Klin. Wochensch.*, No. 22, 1891.

G. J. KAUMHEIMER.

PROGRESSIVE MUSCULAR ATROPHY.—Dr. A. C. Brush, of Brooklyn, reports the following case in *The Med. Record* of June 20. The patient came under his observation March 26 with the following history: Irish, age 28, married, blacksmith. Has always been healthy; never had syphilis. On March 17 became intoxicated and slept exposed to severe

cold. Has not been able to work since, rapidly lost strength, and noticed that his muscles had become smaller. Sharp lightning pains in limbs; all muscles of limbs and trunk atrophied, most marked in extensors of arms and legs. Fine fibrillary contractions can be felt in affected muscles. No muscular paralysis. Reflexes feeble; sensation normal. Both electrical currents produce contractions. Intelligence good, except that he cannot pronounce nor spell the name of the street where he lives; articulation imperfect. Muscular atrophy much more marked. Breathing diaphragmatic; pulse rapid and irregular. He fell, striking his head, which showed no lesion, but in the morning awoke with complete paralysis of lips, tongue, larynx, and pharynx. Remained in this condition until April 19, when he developed pneumonia and died. The points of interest are: the rapid development and atrophy of the entire muscular system, the distinct history of a cause, and the sudden development of bulbar paralysis.

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PROGRESSIVE MUSCULAR DYSTROPHY.—Erb (*Deutsche Zeitschrift für Nervenheilkunde*, 13, 1891,) holds that juvenile muscular atrophy, pseudomuscular hypertrophy, and the infantile and hereditary forms of muscular atrophy, are all varieties of one disease. In a report of eighty-nine cases he proves, first, that the similarity of the essential clinical features of the various forms is so great that they must be closely related; second, that the symptoms which were at one time considered pathognomonic of different diseases are frequently found in combination in the same patient; and third that these varieties have occasionally been found in several members of the same family.

In a future paper the author promises to show that the pathological changes present point to the same conclusion.

COMBINATION OF TABES WITH MUSCULAR ATROPHY.—Prof. Jolly describes a case of a woman 52 years old, sick seven years. Besides the symptoms of tabes there was atrophy of various muscles. The peroneus longus of the left leg did not reach to electric stimuli. The tibialis anticus showed R. D., as did the opponens pollicis on both sides. The extensors of the fingers and hands showed the same reaction in moderate form. Prof. Jolly attributes the atrophy to neuritis rather than to poliomyelitis.—*Berlin. Klin. Wochensch.* No. 23, 1891.

G. J. KAUMHEIMER.

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MECHANISM OF APOPLEXIA CEREBRI SANGUINEA.—Prof. E. Mendel relates experiments made to determine the cause of the predominant location of cerebral hemorrhages in the basal ganglia and their vicinity. He constructed an artificial system to represent the carotid and its branches and finds that the pressure in the arteries of the corpus striatum is but very little less than in carotid, and considerably more than in the terminal branches of the middle cerebral artery which supply the cortex. The terminal branches of the art. corpus striat. are true end-arteries, while the cortical arterioles anastomose quite freely. He formulates the following theory: The transient increase of arterial pressure during life expends itself, in the area of the carotid, in much greater degree upon the art. corp. striat. than upon the cortical arteries. These arteries are not only increased in diameter, but also in length. In advanced age this increased distension leads to an atrophy of the tunica media and to miliary aneurism, until a renewed increase of tension leads to rupture. This increase of tension may be passive, by diminution of outflow, as in straining. Here again the cortical veins empty into large sinuses while those from the ganglia

are restricted primarily to the capacity of the venar Galeni. The unconsciousness, vomiting and convulsions Mendel attributes to rapid variations in the blood pressure and ultimate cortical anæmia. He believes the icebag will follow venesection into the limbo of discarded remedies for apoplexy. Its action on the cortex is not wanted, on the hemorrhage itself it cannot act. The only rational therapeutics is absolute rest with elevated head.

In the discussion Virchow pointed out that other influences beside simple increase of pressure were active. The increased pressure does not explain either the hyperplasia or the degeneration of the vessel wall. Nor does it make plain to us why upon examination we often find only a single miliary aneurism. If this were due to increased vascular tension only, the arterial changes would be found on both sides, whereas the greater majority of apoplexies is unilateral. Our knowledge of the causes leading to the formation of miliary aneurism is quite limited.—*Berlin. Klin. Wochensch.* No. 24, 1891.

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G. J. KAUMHEIMER.

SOFTENING OF THE BRAIN.—Dr. S. V. Clevinger has an article with this title in *The Times Register* for July. He discusses the phrase, "softening of the brain," as it is applied to the various forms of insanity and as an explanation of the usual conditions of mental weakness. His conclusions would seem to be that softening of the brain, as popularly understood by practitioners and the laity, is a myth.

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DERMOID OF THE BRAIN TRUNK.—Dr. A. Kruse found in the brain of a man of 28, dead of phthisis, a tumor of the brain which had not caused any symptoms during life. The fourth ventricle having been opened from above, was found almost filled with a mass of hairs surrounded by shining

pasty masses. The tumor was adermoid extending from the lower end of the ventricle to above the acoustic striæ and whose upper wall was in immediate relation with the cerebellum. The wall consisted of a vascular connective tissue with thick layers of epithelia, part of which were without muscles. The wall contained hair follicles. In some spots the wall was separated from the brain substance by a double layer of ependyma cells, in others it was adherent. The author is able to find only two cases of dermoid of the brain in literature: one of the cerebellum in a child of 7, with paraplegia; the other in the right corpus striatum. In the author's case, a tumor of the size of a walnut occupied the fourth ventricle, a spot very important to life, without causing any symptoms.—*Deutsche Medic. Wochensch.*, No. 15, 1891.

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G. J. KAUMHEIMER.

KNIFE-BLADE FOUND IN BRAIN YEARS AFTER ENTRANCE.—Dr. Richard Slee reports the following case in *The Medical News* of July 25: In removing brain of patient who had died from gunshot wound in the abdomen, found a sharp projecting point in posterior fossa, which, upon examination, proved to be a knife-blade 5-16 of an inch in width and projecting into brain one inch. It had entered the skull about  $3\frac{3}{4}$  inches posteriorly to left external auditory meatus in line of occipito-parietal suture, penetrating lower posterior portion of occipital lobe. The brain in the neighborhood was apparently normal, save a very slight thickening of its membranes in the immediate vicinity of the blade. Everything pointed to the fact that it had been in its position a number of years, and probably had passed through the sutures in boyhood. It had never given him any trouble as he had always the best of health.

B. M. CAPLES.

HYSTERIA AS A SYMPTOM OF CEREBRAL TUMOR.—Hysteria has been observed, either in its entirety or in some of its manifestations, as a symptom of quite a number of organic nervous troubles: multiple sclerosis, tabes, cerebral syphilis, Friedrich's ataxia, dementia paralytica, gliosis spinalis, syringomyelia and degeneration of the lateral columns. Dr. Schoenthal reports the case of a young man 19 years old, who had suffered since infancy from convulsions termed epileptic. There were absolutely no symptoms to indicate any organic or focal disease of the brain. The convulsions observed in hospital were temporarily stopped by cold affusions, and were not attended by loss of consciousness and pupillary reaction.. There was no involuntary passage of urine or fæces and no biting of the tongue.

The convulsions were generally started by a sudden noise or unwonted excitement. His whole behavior was hysterical. Death by "schluck" pneumonia. Autopsy showed, in addition, a tumor of the size of a filbert in the medulla of the left frontal lobe, whose longest diameter lay in a frontal section which cut the base of the second frontal convolution. The tumor was found to be a glioma, rather poor in cells, but containing a very large number of ectatic vessels and hemorrhages of different age. The author discusses a number of hypotheses regarding the relation of the tumor to the symptoms observed, but reaches no definite conclusions.—DR. SCHOENTHAL, in *Berlin. Klin. Wochensch.*, No. 10, 1891.

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G. J. KAUMHEIMER.

A CASE OF CEREBRAL TUBERCLE SHOWING FORCED MOVEMENTS.—The patient was a boy æt. 8, who showed high fever, progressive emaciation, and jerking of the left arm

and shoulder. There was also a paresis of the left arm and leg. When he came under observation the left arm was held tightly to the chest by the right clasped around the wrist. When it was released the arm became immediately extended backward from the shoulder at an angle of 45 degrees and showed jerking in all its joints. The left side of face was parietic, sensation as well as electrical reactions normal. Death from marasmus. Autopsy showed disseminated military tuberculosis. Section of the brain showed a solitary tubercular mass about one inch in diameter in the right thalamus. This was surrounded by a red ring which included the posterior limb of the internal capsule. The greater part of the internal capsule was normal. Two other, smaller tubercular nodules were found in the medulla of the right occipital lobe; one immediately under the cortex of the posterior central convolution on the right side, one in its upper part, one under the cortex of the right occipital lobe, one on the under surface of the right temporal lobe, one in the centre of the left middle frontal convolution, and one at the end of the left sylvian fossa. The author refers to eight similar cases, though not all of cerebral tuberculosis, found in French and German literature.—PROF. C. A. EWALD, *Berlin. Klin. Wochensch.*, No. 10, 1891.

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G. J. KAUMHEIMER.

ANOMALOUS FORMS OF MIGRAINE.—Prof. C. Lange, of Copenhagen, has observed cases of migraine where the cephalalgia was either accompanied by pains in other parts of the body, and especially in the chest and arms, or alternated with pains in these or even more distant parts of the body, thus acting as equivalents for the typical migraine pains.—*Transactions of the Copenhagen Medical Society*, April 14, 1891; *Hospitals-Tidende*, No. 24, 1891.

F. H. PRITCHARD.

PARALYSIS AGITANS.—Borgherini *Rivista Sperimentale* XVII Fasc. 1 and 2, 1891, publishes the microscopical examination of the nervous system in the case of paralysis agitans which had been previously clinically reported by him in a prior communication. The summing up of the clinical symptoms observed was as follows: mental condition normal, excepting a certain degree of depression, sensibility apparently intact, excepting pain in the members, muscular action retarded, rigidity of the trunk and limbs, fibrillary tremors; trembling of the whole body, but most marked in the arm, the face and the tongue; eyes very little mobile, the deglutition slow, pharyngeal reflex good. In the vascular system were noted, tachycardia, marked cutaneous vaso-motor reflexes, spontaneous hyperæmia of the face, accompanied with vertigo, general subjective feeling of heat as was also objectively confirmed by the thermometer. The cutaneous, tendonous, and pupillary reflexes were diminished, and also the electric excitability, especially to the galvanic current.

The most marked anatomical alterations discovered consisted in the trophic lesions of the nervous elements. These were not alone involved but there were still more marked alterations in the smaller arteries of the whole capillary system, involving not only the smaller arteries supplying the nervous centres and the muscular system, but also the *vasa vasorum* of the larger vessels (Internal carotis and basilar arteries).

The author sees in these vasal abnormalities the principal elements in the pathology of the disorder, the first pathogenetic movement being an alteration in the capillary system which is followed secondarily by trophic changes in the functional elements and in the interstitial tissue. The

lesions compare quite closely with those of senil, involution, and he holds that paralysis agitans represents properly the premature sinility of the nervous system which may occur, though rarely, in young individuals. He holds that the clinical facts also support this theory of the pathogenesis of the disorder.

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H. M. BANNISTER.

CHRONIC PROGRESSIVE BULBAR PARALYSIS.—Hoffmann (*Deutsche Zeitschrift für Nervenheilkunde*, 169, 1891) reports a case in a boy eleven years of age which ended fatally in one year.

The question of diphtheritic paralysis was absolutely excluded, nor could any facts bearing upon the etiology be discovered. The typical symptoms of glasso-labio-laryngeal paralysis were present and in addition the sterno mastoid muscles were paretic and atrophic and the deep muscles of the neck as well as those of the trunk, shoulder and arm showed wasting and loss of power. There were fibrillary contractions of the muscles of the upper extremities, trunk and thighs, at times approaching choreiform movements. The reflexes of the upper extremities were diminished, those of the lower normal.

Unfortunately no autopsy could be made. The pathological lesions present were probably those of degeneration of the ganglion cells in the floor of the fourth ventricle with secondary degeneration of the anterior horns of the gray matter of the spinal cord without involvement of the lateral tracts.

The case was of interest chiefly on account of the age of the patient, the disease being usually seen in adult life.

J. KAHN.

LANDRY'S PARALYSIS.—Prof. Klebs, *Deutsche Med. Wchnsch.*, XVII. 3, 1891, abstract in *Schmidt's Jahrbücher*, found in a case of Landry's paralysis which terminated with pericardial tuberculosis, widely distributed hyaline thrombi in the branches of the central artery of the spinal cord, most numerous in the lumbar cord and in decreasing numbers above. As secondary phenomena were found minute hemorrhages and exudates specially in the ganglion cells of the anterior horns, conditions which the author considers, on account of the peculiar arterial supply of the cord from two arterial systems (vertebral artery, anterior spinal and anticastal arteries) and from the clogging of one system, as necessary results from the circulatory changes. The peripheral nerves were intact and Klebs holds in the main that were any disease of these discovered, the same would have to be a secondary one due to antecedent lesion of the cord. Alterations of the ganglion cells themselves, aside from those appertaining to the pericellular exudations already mentioned, are not described by the author. From the peculiar anatomical structure (length of the anterior spinal artery and its richness in muscular elements) the author thinks that these appearances can be explained by the morbid process occurring in the central artery of the cord, which is derived from the vertebral. The cause of the thrombosis is to be found, probably, in the action of a toxine.

H. M. BANNISTER.

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In the same number of Schmidt are two other abstracts, one of a paper by Manwerch and Barth, in *Ziegler's Beitr. zur path. Anat.*, and the other of an article by C. Eisenlohe in the *Deutsche Med. Wochensch.*, 38, 1890. The authors of the first of these report a case of Landry's disease and review the

literature quite fully. Their conclusions are that the paralysis of Landry must be ascribed to a degenerative multiple neuritis, probably of infectious origin, which follows in its extension a definite direction.

Eisenlohe reports two cases in which he made autopsies and found that sometimes general, and sometimes interstitial parenchymatous alterations of the peripheral nerves from the anterior roots to the final muscular terminations played an important part in the disorder, and also that in one of his cases there was an acute myelitic condition in the cord in which he found several forms of microbes.

H. M. BANNISTER.

SENSORY AND VASOMOTOR DISTURBANCES IN FACIAL PARALYSIS.—Most text-books state that there are no sensory or vasomotor disturbances in facial palsy, although isolated reports of such disturbances are found. V. Frankl-Hochwart found among 20 cases from Nothnagel's clinic, 5 cases of sensory, 2 of vasomotor, and 3 of combined disturbance. The sensory disturbance was always slight in degree and did not always involve the mucous membrane. Taste was disturbed in several cases. These disturbances usually disappear much sooner than the motor trouble, only one inveterate case showing reduction of sensation after several years. The author believes that these facts show that the facial nerve in man contains sensory and vasomotor fibres, as does the same nerve in animals.—*Wien. Med. Presse*, No. 16, 1891.

G. J. KAUMHEIMER.

ARTHRITISM AND NEUROSIS.—A series of articles in the *Gaz. Med. de Paris*, March to April, 1891, discusses the relations of the rheumatic and gouty diatheses to neuroses. The mental condition of arthritic patients is influenced by their

diathesis without cessation in the methods of thinking and acting. Their ideas are mobile; there is constant nervousness and a tendency to depression. A degree further, neurasthenia is produced, and later hysteria. Their mental state closely resembles that of the hereditary neuropathics. They are always in search of novelties, but soon tire of their enterprises; non-success does not discourage them, but serves as a pretext for new enterprises. There is unfounded dread of possible disease. There is an inquietude, a causeless sadness. This depression pleases the patient who preserves and parades it. It is often related to congestive visceral attacks. Surrounding conditions exert a great influence on the patient. Illusions are frequent; a shadow is perceived as a flying animal. Hallucinations are rare, except in predisposed subjects. Visceral congestions produce nocturnal respiratory anguish and insomnia. All symptoms are ameliorated by menstrual periods and by hæmorrhoidal, intestinal, urinary, or genital discharges often occurring in crisis of days' duration. Arthritism increases renal work and leads to the generation of toxins which affect the central nervous system and unite with congestions due to arthritism in producing pathogenic results. Paretic dementia which may result from this, exhibits depression. It may run a rapid course with frequent apoplectiform attacks, but there are many cases of prolonged and frequent remissions. Derivation is the chief treatment indicated.

J. G. KIERNAN.

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CHRONIC GUMMATOUS MENINGITIS.—Dr. Newton Pitt reports a case in *The Lancet* of May 9, of five years' duration. Since 1884, or 1885, patient has had frequent attacks of intense pain over left temporal bone, culminating in general convulsions without unconsciousness. Frequency was variable, but

he had never been two months free from an attack, and sometimes had as many as thirty daily. He was very emaciated, and when he attempted to walk reeled about. There were old adhesions from iritis in left eye with commencing optic neuritis. He improved greatly upon large doses of iodide of potassium. Six months later had an average of two fits daily, intense temporal pain, and double optic neuritis. After some time had left-sided epileptiform convulsions lasting for a minute or so, followed by hysterical condition; loss of consciousness transient. Necropsy a year later showed dura mater adherent over whole of right side. There was a fibro-caseous, gummatous thickening over angular, supra-marginal, and central, portion of ascending and frontal convolution. The cortex of the two former were severely infiltrated. There were a few spots in lower part of ascending convolution. The long duration of the disease, and its wide distribution, were the features of interest. Also the fact that in 1889 with the exception of an occasional attack, there were no physical signs except partial optic atrophy, and a unilateral hemiopia.

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B. M. CAPLES.

SUPPRESSION OF MILK DURING AN ATTACK OF EPILEPSY.—M. Ferre has noted the complete suppression or diminution of various of the secretions during attacks of epilepsy; but he has recently had occasion to note a fact of interest in the history of these phenomena of diminished nervous co-ordination.

The case was one of a woman of 28 years, who had been epileptic since her 18th year, and who had undergone a course of treatment with the bromides during a continued period of two years, and who was apparently cured. The

last attack had been in February, 1890, at which time she was pregnant for the second time. The delivery took place without complication. During the time of lactation the bromides were suspended. After some months of nursing, she was suddenly overcome by an attack of excessive severity which lasted for more than two hours. When she again attempted to put the child to the breast, she noticed that the breasts were entirely flaccid, and that they contained not a drop of milk.

From the time of the attack, the lacteal secretion was permanently absent, and from that date the health of the mother has been perfect.—*Soc. Biolog. El Progreso Medico*, July 1891.

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H. M. BROWN.

RECORDS OF SEVERAL CASES OF PARETIC DEMENTIA.—Dr. Allen J. Smith reports the findings in several cases in the first volume of *The Philadelphia Hospital Reports*. The reports are interesting, but space will not permit of a complete abstract. In one case the epileptiform paroxysms seem to have been repressed by symptoms of collapse associated with cardiac depression. The doctor suggests that the attacks may have been due to cardiac spasm producing on the venous side sufficient stasis and engorgement to account for the meningal appearances. In other cases the cortex was found distinctly ~~corosed~~ chiefly around the penetrating vessels.—*International Clinics* for April.

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B. M. CAPLES.

STATUS EPILEPTICUS.—Drs. Trowbridge and Mayberry contribute an article to the *Journal of Nervous and Mental Disease* for July on this subject. They give the clinical histories of a number of cases, and notes of autopsies and their method of

treatment. Status epilepticus is a condition in which epileptic convulsions occur in such frequent succession that consciousness is not regained between them. In regard to the treatment they have found that sulphate of morphine given hypodermically in a dose of  $\frac{1}{3}$  of a grain relieved the convulsions in one case. Sulphate of atropine improves the circulation and respiration, but does not stop the convulsions. Hydrobromide of hyosine if given in sufficient doses will produce sleep, and while it does not stop the convulsions it produces an interval of rest. Hydrobromate of conine has given the most satisfactory results of any remedy. It should be given in doses of 1-40 to 1-100 grain hypodermically. It may be combined with sulphate of morphine to produce sleep, and atropine to stimulate respiration and circulation. The conclusions drawn from this paper are as follows: 1. On account of its association with epilepsy, status epilepticus should not be considered a distinct disease, but merely a climax of the neurosis. 2. It consists of two stages: (1) a convulsive, and (2) a comatose, though the latter is sometimes replaced by a period of maniacal excitement. 3. That there is no demonstrable lesion causative of the status. 4. That the prognosis is unfavorable. 5. That the treatment is in a measure symptomatic, but considerable reliance can be placed upon the hypodermic use of the hydrobromates of hyosine or conine combined with the sulphate of morphine."

B. M. CAPLES.

INFANTILE SPASTIC DIPLEGIA WITH TREMORS OF THE "DISSEMINATED SCLEROSIS" TYPE.—Dr. T. C. Railton, reports the following case in *The British Med. Jour.* of June 27. Child aged nine, admitted to the hospital February 9. Born

after prolonged labor; at two years of age had made no attempt at walking, and at this period had a fit; a year later had two more attacks the same day, but since has had none. Hands were noticed to shake when she used them a few months before the first fit. Has a large head,  $56\frac{1}{4}$  cms., both size and shape suggestive of hydrocephalus, but no other evidence of disease now perceptible. Is mentally deficient, cannot read nor spell; at times has violent and uncontrollable temper; fine tremor of arms when raised voluntarily; in actions requiring precision the movements change to coarse oscillation, which gradually become extreme as she approaches attainment, in exactly the same manner as the tremor of "disseminated sclerosis." She cannot convey a glass of water to her mouth nor feed herself; movements cease entirely as soon as the arms are at rest. Lower extremities in same condition; left leg slightly contracted at knee; knee jerk exaggerated; ankle clonus readily obtainable; rigidity of the legs when in action; little or no spasm of adductors of thigh. Extremely sensitive to touch, slightest prick of pin anywhere about limbs or body produces universal involuntary twitching extending to the muscles of the face. The history of the case clearly points to an injury to cerebral cortex from meningeal hemorrhage at time of birth. It is very possible there may have been some hydrocephalus prior to birth which predisposed to injury of brain during delivery. Of this there is no proof beyond the fact that the head is, and always has been, of abnormal size, and the injury itself with subsequent arrest of development of the motor tracts appear adequate to account for the various manifestations described above.

ABORTIVE TYPES OF SCLEROSIS "EN PLIQUES," Charcot says (*Prog. Med.* March 14, 1891), can be divided into three classes: A. Atypical forms (abortive by effacement; simple spasmodic paralysis). B. Abortive forms, properly so-called (abortive primitively; spasmodic paraplegia.) C. Forms rendered atypical by intervention of isolated phenomena. First, a hemiplegic variety; second, a tabelic variety; third, a lateral amyotrophic variety.

J. G. KIERNAN.

SYPHILITIC ENCEPHALITIS, according to Dr. E. Lancereaux, (*"Arch. Gen. de Med.,"* May 1891) evolves in a slow progressive manner. As a rule it begins with vertigo, dizziness and insomnia. It rarely produces convulsive crises or sensation disorders. It frequently ends in paralysis with contracture accompanied by mental disorder, sometimes even to the extent of dementia. In some cases the disease remains stationary, or improves, in contrast with the progressive course of encephalic tumors. This spontaneous improvement is rare, albeit treatment sometimes rapidly modifies this disease, yet complete recovery is not possible except where the nerve elements have preserved their integrity. The tendency of luetic manifestations being destructive to normal tissue, it results that neighboring nerve tissue is destroyed or modified. Whence the indefinite persistence of some symptoms (notably paralytic phenomena when all cerebral arteries are effected). Death may result from an extended luetic encephalitis or even a limited one, in the medulla oblongata. It occurs in different fashions; in coma, and sometimes suddenly in medullary involvement. He prefers in treatment calomel in divided doses and potass. iodide to the extent of three to five grams in twenty-four hours. Mercurial frictions are used coincidently.

J. G. KIERNAN.

AMYOTROPHIC PHENOMENA FROM EXCESSIVE USE OF SEWING MACHINE.—Charcot (*Prog. Med.*, April 4, 1891) reports the case of a drunkard's daughter who suffered from sciatica followed by amyotrophic paralysis in the popliteal region after excessive use of a sewing machine.

J. G. KIERNAN.

SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.—In a paper read at the congress of Russian Physicians, Prof. Tarnowsky reaches the following conclusions: 1. The patient's history and the results of experimental treatment furnish no basis for a scientific clinical diagnosis of the cerebral syphilis. 2. The diagnosis of cerebral syphilis must be based on the study of the nervous symptoms, their development, course, and grouping. 3. Unless other organic and mental diseases are excluded, an accurate diagnosis is not possible. 4. Locomotor ataxia and progressive paralysis are never caused by syphilis. 5. Mercurial treatment is to be condemned even if a history of syphilis is elicited in these cases. 6. Alcohol and heredity are the main factors predisposing to the localization of syphilis in the brain.—*Wien. Med. Presse*, No. 12, 1891.

G. J. KAUMHEIMER.

THE EFFECTS OF ARTERIO SCLEROSIS UPON THE CENTRAL NERVOUS SYSTEM.—The following is an abstract of an article by Dr. J. G. Preston, of Baltimore.—The cortical arteries are, perhaps, terminal arteries, and pass into the cortex perpendicular to the convolutions. These arteries may be divided into two groups: the short, which supply the cortex, and the long, or medullary arteries, which pass into and supply the white matter. The arteries of the brain are of slight importance to the tissue through which

they ramify, but lie in little canals known as peri-vascular spaces, which are lined by a delicate membrane, and connect with the spaces in which the cells lie. Recent investigation has shown that arterio-sclerosis and its later stage, atheroma, are not uncommon. This condition may exist in the general systemic arteries and not in the brain, or it may exist in the brain, but not in the arteries elsewhere. The fact that the cerebral arteries lie in the peri-vascular spaces enables them to more easily change their shape and become tortuous under high pressure, and also favors the occurrence of aneurism. Irregularities in the size of vessels, dilatations, and constrictions, are commonly met with as conditions of cerebral disease. Dilatations occur where branches are given off and small aneurisms are frequent. It is probable that the disease called milliary aneurism begins by degeneration of the middle coat; this condition is rarely met with in the spinal cord. Milliary aneurism is the usual underlying cause of cerebral hemorrhage. Next in importance to the formation of aneurisms is the formation of thrombi and emboli in the diseased vessels. The diseased and roughened *intima* forms the most favorable condition for thrombus, and this liability is increased by local disturbances of the circulation, as slowing of the blood stream by the constricted vessels. Tortuosity and unequal calibre of the cerebral vessels is a pathological condition frequently met with, and this involves unequal supply of blood to the brain. Atheroma frequently occurs in old age and seems to be a part of the general decay of the tissues and is, perhaps, an important factor in the production of many conditions of senility. In the Bay View Insane Asylum, Dr. Preston has found that a high degree of arterial deformity may exist without producing any very marked symptoms. Dr. Friedenwald, in making an ophthalmoscopic examination of

the eyes of twenty-three patients, or forty retinae, observed by Dr. Preston, says: "Of these forty retinae, nineteen presented decided local or general narrowing of the arteries with frequent tortuosity (twelve patients); ten presented moderate or slight changes of the same kind (seven patients); four presented whitish margins along the arteries (two patients); one presented a hemorrhage on the papillæ; seven appeared thoroughly normal, while there were other extensive retinal changes. Besides these I noticed in several cases senile retinal changes, in the characteristic little yellowish spots due to colloid degeneration of the lamina vitræ of the choroid. The proportion of cases in which decided changes were found is so great that I am led to thoroughly accord with Raehlmann as to the frequency of these changes and their importance in diagnosis."—*Jour. Am. Med. Ass'n*, May 2.

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A CASE OF HAEMATOMYELIA.—The patient was found unconscious and remained in this state 36 hours. After awakening, the only complaint was of tenderness over the fourth dorsal vertebra, and weakness of the lower extremities, in which, however, active movements were possible. Reflexes normal, sensation reduced in lower extremities. The strength of the legs was diminished visibly, so that after 12 days he was unable to lift the limbs from the bed. If the attempt was made, intention tremor developed. Reflexes at this time increased, clonus distinct. On the 15th day an extension dressing was applied to both legs and the foot of the bed raised on the supposition of an injury to the spine, 10 hours afterward the patient suddenly became comatose, with small fluttering pulse and rapid respiration. Recovering in 30 minutes upon lowering the bed and removing weights, as well as two injections of camphorated ether. Complained

of general malaise and pains in knees. Sensation abolished to above knees. No. R. D. The tenderness of the spine had extended in both directions and had increased over the original spot. The author considers the symptoms pathognomic of hæmatomyelia due to injury of the spine.— (DR. STROHE, *Berlin. Klin. Wochensch.*, No. 10, 1891.

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G. J. KAUMHEIMER.

CORNEAL LESIONS FROM SLIGHT TRIGEMINAL AFFECTIONS.— Dr. Kalt (*"Jour. des Soc. Scient.,"* Apr. 29, 1891) reported that certain trigeminal alterations which produced facial hemiatrophy also caused central choroiditic lesions. This results from the trophic functions of the nerve being affected. He had also several times observed that central corneal opacities, interstitial and without erosions or cicatricies, come on slowly in persons who had suffered only from periorbital neuralgiæ without any zona symptoms. The centre of the cornea where the opacity is usually encountered is alone anæsthetic, or at most a minute circle of transparent tissue around it. A similar anæsthesia is observed after squint operations and may involve a large part of the cornea without producing other effects than a slight temporary loss of epithelium. Ronvier has observed similar cases.

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G. J. KIERNAN.

A CASE OF HEMIANOPSIA AND HEMIANÆSTHESIA WITH ATAXIC HEMIPARESIS DUE TO EMBOLISM.—A woman 22 years old had suffered from rheumatism at the age of 7. Since then she had palpitation. Three abortions followed by a labor at term. On the 10th day she arose in the night, fell beside the bed, was unable to arise, but did not lose consciousness. On admission four days afterward it was found that motion in the left lower extremity was barely possible. The strength of the left arm was greater, although the

movements were choreic, unsteady and excessive. Examination showed severe mitral stenosis and dilatation. Numbness of left arm and leg. Sensation for pressure, touch and pain were reduced on the left side. There was absolute abolition of the sense of location in the left arm. This sense was also reduced in the left leg. There was left homonymous hemianopsia. Four weeks afterward the patient had regained the use of her limbs to some extent, although a slight rigidity and some exaggeration of reflexes had developed, as well as ankle clonus. The field of vision in the left eye had become nearly normal in extent, while that of the right eye had undergone no change. These symptoms can only be logically explained by assuming a lesion in the thalamus at the point at which it touches the posterior third of the posterior limb of the internal capsule. In answer to a question the author stated that slight involvement of the right side of the face was observed on causing the patient to laugh. Hemianopic pupillary reaction could not be observed although looked for.—DR. GOLDSCHIEDER, *Berlin. Klin. Wochensch.*, No. 24, 1891.

G. J. KAUMHEIMER.

A CASE OF BILATERAL OPHTHALMOPLÉGIA EXTERNA.—Patient æt. 37, with neuropathic ancestry. Bilateral ptosis right eye rect. intern. and infer. paretic, the other muscles paralytic. On the left side, rectus entronus and inferior are paretic, the other paralytic. The condition of the patient varies, sleep is good. On waking, and for several hours after, the patient feels well and can use his eyes. After this interval the ptosis develops besides crossed diplopia. The author believes the trouble to be due to a chronic ependymitis of the fourth ventricle. The disease had resisted treatment for over six months.—DR. W. GOLDZIEHER, *Wien. Med. Presse*, No. 13, 1891.

G. J. KAUMHEIMER.

IDIOPATHIC SPINAL HEMORRHAGE.—Dr. Theodore Diller has an article upon the above subject in *The Med. Rec.* of June 6, 1891. A laborer aged 51, in robust health, after performing his day's labor went to bed feeling as well as usual, but instead of going to sleep remained awake and tossed about in bed for two hours. He was suddenly seized with excruciating pain about the first lumbar vertebra, which radiated down the abdomen and about the thighs. He became nauseated for a few minutes. The feet soon became numb and on attempting to stand he became aware of diminution in power of legs. In a few minutes there was loss of motion and sensation in both legs: pain rapidly lessened in intensity so that patient was entirely free from it in twenty-five minutes from the initial attack. Loss of control of bladder and bowels noticed the following day. Paralysis continued unchanged for about three weeks. Patient could at that time move toes of left foot. He made steady progress towards recovery. Dr. Diller concludes that the lesion was a hemorrhage—very large—either in the cord itself or in the structures that surround it. He is strongly inclined to think that the hemorrhage occurred in the cord itself, in the dorsal region. The treatment consisted of potassium iodide, strychnia, and galvanism.

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B. M. CAPLES.

PRIMARY HEMORRHAGE INTO THE SPINAL CORD.—Dr. Seymour J. Sharkey reports the following case in *The Lancet* of May 2. A boy, aged thirteen, while skating received several falls, but did not feel hurt. He walked home and soon after felt pain in the left shoulder, abdomen, and legs, succeeded by loss of power in lower extremities, so that in two hours he could not walk. Had retention of urine, pulse 144, temperature 101.8, sensation impaired as far up as fourth or

fifth dorsal spine. Above the line of anæsthesia small zone of hyperæsthesia. Had numbness of left hand, knee jerk on right side completely absent, on left side not well marked. No ankle nor patella clonus. Abdominal and cremasteric reflexes were absent, plantar fairly brisk. Pupils were both small and did not contract to light. Had pneumonia of left lung on third day after admission, the right became affected a little later. Persistent retention of urine, bowels very confined, loss of power in left arm, severe pain in head, anæsthesia became less, only patchy. He died on the eighth day of illness. Necropsy.-Brain much congested on surface, puncta cruenta unusually prominent, gray matter congested, a little stickiness over chiasma was evident. On removing brain no other evidence of meningitis was found. Pia mater front and back much congested, but free from lymph. At the level of the third dorsal pair a hard localized swelling was felt; here the cord was bulged; above and below the cord felt soft, surface had a slightly yellow tinge. An extravasation of blood was found occupying nearly all of the transverse extent of the cord. Microscopic examination showed that the hemorrhage was the only pathological condition in the cord. He says this is the first case he has met with in which simple primary hemorrhage of the cord has been shown by post mortem examination to have been the lesion that has proved fatal.

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B. M. CAPLES.

STAB WOUNDS OF THE SPINAL CORD.—A healthy man, æt. 35, received several wounds on the head and neck. As he received the last, he felt his right side give way, and fell, but did not become unconscious. He was first seen 20 hours after injury. The occipital muscles had been cut from their attachment on the right side. The atlas and axis were seen

at the bottom of the wound. The right scalend, the muscles of the right shoulder and arm, and the right side of thorax and abdomen were completely paralyzed. The sternomastoid acted normally. The right lower extremity was paretic and would not support his weight. Cranial nerves normal. Sensation in all its qualities was normal, with the exception of a crawling in the arm and a painful spot below the internal malleolus on the *right* side. Reflexes and electric reaction normal. Three weeks after receipt of the injury, an improvement in the function of the paralyzed arm was noticeable, which continued, so that at the end of the second month motion was normal. The reflexes were, however, enormously increased during this time. At the end of the third month they were normal. A year later patient complained of occasional tremor in the arm.

The author has been able to find thirty-six other cases of stab injury of the cord in literature, twenty of which were in the cervical region. Of the other sixteen, twelve were in the upper dorsal region. The Brown-Séquard symptom was present in all cases, but never pure. Usually the disturbances of sensation exceeded those of motion. He attributes this to the fact that the lesion is rarely unilateral, the injury usually crossing the posterior fissure and not reaching the anterior. This is due to the fact that the direction of the knife is usually from below, upwards, forwards and toward the median line, the space being very limited. The cord being suspended in the canal, is not cut until the weapon has pushed it aside as much as possible, unless the weapon be exceedingly sharp.

The side of the injury is stated in twenty-eight cases. In eleven the cord symptoms pointed to an injury of the same side as the external wound, seventeen times to the opposite

side. In injuries of the cervical cord, the injury was on the same side in seven, on the other in nine, and in two cases there were unilateral symptoms with a median external wound. In nine out of fourteen cases of injury of the dorsal cord the lesion was crossed. The part of the cord injured in the author's case was probably the most external fibres of the lateral columns between the second and third cervical vertebræ. According to Flechsig, the lateral pyramidal tract, and possibly the lateral cerebellar tract, were the systems involved. The sensory disturbance may safely be attributed to contusion and interstitial hemorrhage. The question whether the divided systems unite in such a manner as to resume their function, or whether these functions are assumed by the opposite side, the author is unable to decide.

In regard to prognosis, the sharper the weapon and the less the accompanying contusion, the better the prognosis in unilateral lesions. The greater the extent of division, the worse the prognosis. Retention of urine and constipation are mentioned eight times, passing into recovery or incontinence in one or two weeks. Priapism has been noticed twice, in injuries of the cervical cord. Vasomotor disturbances of the skin are found in almost every case. Elevations of temperature, not local, are probably due to wound infection or a beginning meningitis. The author recommends that the wound be not sutured immediately, as this course is likely to force blood and septic material into the spinal canal. Secondary suture, or union by granulation is the object to be attained.—DR. OTTO BODE, *Berlin. Klin. Wochens.* No. 22-23, 1891.

A CASE OF GILLES DE LA TOURETTE'S DISEASE.—Dr. L. Stembo describes a case of this disease which he says Gilles de la Tourette has shown to be identical with the troubles known as jumping 'Beard,' latah 'M. O'Brien' and myriachit 'Hammond'. The patient had a good family history and had never had rheumatism or chorea, but had masturbated for some years and married at 18. At the age of 16 he first felt slight spasms in the neck, which later spread to the face and right arm, and at last to the left upper and both lower extremities. Disturbance of speech and voice as well as spasms of the diaphragm occurred occasionally. His son, æt. 16, shows signs of this disorder. When first seen, at the age of 37, no abnormality of figure, vital organs, or special sense could be detected. There was echolalia and coprolalia and spasm of almost all the facial muscles. The tongue was frequently forcibly projected from the mouth. The head was frequently and forcibly turned to the left, with the chin raised, much less frequently to the right. There were all sorts of spasmodic movements of the upper extremities, spasms were less frequent in the lower extremities and seemed to be confined to the peroneal nerve district. All these movements became less when the attention was diverted, could be suppressed for a short time by the will ceasing during sleep. Sensation and skin reflexes were normal. No ankle clonus. Knee reflex exaggerated, especially on left side. The mechanical and electric excitability of nerves and muscles was increased.

Upon the use of central galvanization and electric baths the spasmodic movements and echolalia became less, the coprolalia disappeared.

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1. It will be observed that the description does not at all agree with that of Hammond (Dis. of Nerv. Syst. 8 ed. N. Y., 1888, p. 931.) Translator.

The prognosis quo ad vitam is good, as to recovery, poor, except in hysterical patients. The author then discusses the differential diagnosis from: 1.—Paramyoclonus. In this disease the spasms are unilateral. Echolalia and copsolalia are absent. 2.—Chorea. In chorea the voluntary movements are always disturbed by the choreic spasm. Here very rarely. 3.—Chorea electrica. Here the spasm is generally rhythmical. 4.—Hysteria presents the well-known stigmata. 5.—Athetosis. Here the spasms are restricted to the lower segments of the extremities, are rhythmic and co-ordinated. In the trouble under consideration they are neither, and involve face and neck.—*Berlin. Klin. Wochensch.*, No. 28, 1891.

G. J. KAUMHEIMER.

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DIFFERENT TYPES OF PARALYSIS IN YOUNG CHILDREN.—This was the subject of an instructive lecture by Dr. Landon Carter Gray, of New York, which is published in *The International Clinics*. The illustrative cases are the charm of the clinic and Dr. Gray seems to have had a brigade of small boys for his purpose on this occasion. The cases in the lecture illustrated the two forms of paralysis of childhood, those of cerebral, and those of cord, or peripheral nerve origin. In the former there is mental involvement, in the latter it is absent. In cases of paralysis from polio-myelitis, or neuritis, there is no danger of mental trouble, though the paralysis may be permanent. In the cerebral type there is no muscular atrophy, whereas, in the spinal and neuritic type atrophy occurs. The only remedy to be recommended in these cases is the faradic current, which is especially useful in redeveloping the wasted muscles in polio-myelitis.—*International Clinics*, April.

MYOTONIA AND ATHETOID SPASM.—This was the subject of a clinical lecture at the Philadelphia Hospital by Dr. C. K. Mills. The lecture was illustrated by two patients, one having spastic immobility, or tonic spasm, of a certain type; the other, mobile spasm, or atheto-choreoid movements. In both cases the abnormal phenomena are developed by effort after rest. The first patient, who is about forty years of age, had slight indications of the disease at the age of ten. For the past seven years has occasionally fallen suddenly to the ground. He has no dizziness nor unconsciousness, but says he seems to feel very weak. When sitting in a chair if he attempts to rise his muscles will stiffen, and it is only by a very great effort that he can gradually get himself into an erect position. If sitting on the floor, or on his knees, it is impossible for him to rise without assistance. In walking his movements are stiff, his steps short, his gait shuffling, his limbs keeping close together. After walking a little distance he moves with greater ease, but as he becomes tired the difficulty increases. On attempting to open his hands a spastic wave seems to flow from his shoulders to his fingers' ends, or the process is reversed. The arms are strongly flexed at a slight angle. A greater flexure occurs at the elbow and still more at the wrist. The thumbs are slowly extended, then the fingers thrust inward are gradually unwound. The whole of this is done with the appearance of strenuous effort, the entire extremities being in a state of tremulous spastic excitement. He cannot grasp anything and cannot hold the dynamometer with any grip. If he opens his mouth he is not able to close it for a minute or two, and then it is done by the use of his hand. His speech is mumbling, and he suffers from much pain in the head. There is increased sensation of pain in left leg. There

is some anæsthesia in same leg below the knee. In the right leg sensation to touch and pain is everywhere increased. Knee-jerk, muscle-jerk, front-tap and ankle-clonus are absent. This is a case of myotonia congenita, or Thomsen's disease. The main phenomena in this case are: inertia, immobility, rigidity and tonic spasm after rest, initiated or increased by voluntary effort. Every muscle, or every group of muscles in the body, may become involved in this disorder. The muscles become hypertrophied. We sometimes see an affection closely resembling Thomsen's disease which is probably hysteroidal. The prognosis in such a case is bad.

The second case was one of athetoid spasm and myotonia on voluntary effort. The patient, fifty years of age, had a sun-stroke eight years previously which was followed by a fit. He apparently recovered, but in about a week had another attack and continued having these every week for several months, but after a year had no more attacks. Soon after the series of seizures he began to have spastic and athetoid movements in the limbs of the left side, probably first in the upper extremities. The muscles of the neck are in a more or less spastic condition, keeping his head thrown back. His limbs, trunk and body generally, even when quiet and uninfluenced by voluntary effort, have more or less spasticity and rigidity. His mouth is somewhat distorted by muscular spasm. All voluntary movements produce peculiar spasms. If, for instance, he attempts to open his mouth, the muscles on the left side of his face are drawn up forcibly, the eyelids snap, the muscles of the neck are affected with spasm, the head is twisted to one side, the tongue is drawn backward, the left upper extremity is thrown into a marked athetoid spasm, the fingers twisted and pointed in different directions, the muscles being rigid, and the left leg is thrown into a

more or less spasmodic condition. There are at the same time very slight athetoid movements of the right side. Whatever may be attempted, however, the unfortunate left hand is thrown into an involuntary spasm, the result being painful, as well as awkward and grotesque. The movements of his fingers and thumb are so far beyond his control, that these parts have been so depressed and rubbed together that in various places even the true skin is rubbed off, the fingers presenting a bruised and scarred appearance. Efforts at opening and closing the eyes are attended by spastic movements. Independent and voluntary effort, and manipulation of muscles bring about the spasm. He seems to maintain a standing position in a sort of mechanical way with his feet wide apart, his limbs being rigid and hard. He is a man with a large portion of the body rigidly fixed in spasm, and his upper extremities at the same time in a state of mobile spasm. With great care, and by the use of a cane, he can walk. Over the left arm and over the left side of the chest sensation is partly lost, and is partially lost over the outer posterior aspect of the right arm. Knee-jerk is increased in both legs, muscle-jerk, front-tap and ankle-clonus are also present. In testing for knee and muscle-jerk the legs become spastic. He has no headache. At one time he was observed to have an attack simulating Jacksonian epilepsy and for this reason the writer thinks it probable that certain lesions are developing in the left half of the brain similar to those which at an earlier period had probably developed on the other side. (The reprint of this lecture, which is from the *International Clinics*, is illustrated by a number of excellent photographs.)

A RECENTLY DESCRIBED FORM OF SPINAL DISEASE.—Prof. Granger Stewart gives notes of a case entitled as above. Patient was 48 years of age, had seen various neurologists, and a variety of opinions had been expressed as to the nature of his case. Had always been well until Jan., 1889, when he noticed a slight tingling in the tips of his fingers in both hands. The sensation increased until it became distinctly painful. If he made a wrong step in walking, or struck his foot against any impediment, felt a tingling both in legs and arms. Gradually these symptoms increased, and all symptoms were exaggerated in cold weather. Muscles wasted to some extent, knee jerk exaggerated, no ankle clonus. Rest, good diet, careful massage, localized electrization, with nerve tonics, particularly strychnine, were prescribed. Under this treatment he improved until he attempted to take a long walk on a hot evening. This was followed by an exaggeration of all his symptoms. Autumn of 1890 found him weaker, thinner and more anæmic than before. Motor power considerably weaker, and was confined to his room most of the winter suffering much from diarrhœa and increased debility. The history and features of this case do not conform to those of any well recognized type of nervous disease. There is a condition which has been described by Drs. Putnam and Dana,—the former writing in March, 1889, and the latter in April of the same year—which seems to correspond very closely to the symptoms met with in this patient.—(*Brit. Med. Jour.*, June 6th.)

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B. M. CAPLES.

OCCIPITAL PAIN AS A SYMPTOM OF GLYCOSURIA.—Prof. C. Lange, of Copenhagen, has observed a series of cases of glycosuria, where the patients suffered from violent, symmetric pains situated in the occipit, half way between the midline

and the mastoid processes. These pains were more violent on motion. Both the glycosuria and occipital pains were caused to disappear upon placing the patients upon an anti-diabetic diet.—*Transactions of the Copenhagen Medical Society*, April 14th, 1891; *Hospitals-Tidende*, No. 24, 1891.

F. H. PRITCHARD.

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NEUROSES OF DEVELOPMENT.—Dr. Clouston's second and third lectures on this subject are published in *The Edinburgh Medical Journal* for June and July. He holds that general paralysis of the insane is allied to old age, being equivalent to a premature and sudden senile condition. It is, therefore, a disease of retrogression and decadence. In certain rare cases it occurs as a neurosis in the course of, and having a direct relationship to, the developmental processes at the time puberty should occur. In speaking of the relation of neuroses of development to tuberculosis, he calls attention to Dr. James' investigations, which show that tuberculosis chiefly takes place in the organs that are liable to it during the period of growth and development of the organism. He holds that tuberculosis tends to occur in the various tissues at periods when the excessive nutritive power required for growth is becoming, or has become, exhausted. We are entitled, therefore, to assume that a low nutritional condition of the body is the great predisposing cause of tubercular affections, and that this mal-nutrition is a form of trophic neurosis in consequence of which the bacilli attack the pulmonary tissues. Idiots and congenital imbeciles are particularly liable to tuberculosis.

THE PATHOLOGY OF CHOREA MINOR.—While investigating the pathology of chorea, Flechsig and others observed small globular bodies on the vessels in the middle and inner zone of the lenticular nucleus.

Wollenberg examined a large number of brains to determine whether they had any bearing upon the causation of that disease. The results were negative. The bodies were found in many, but not all cases of chorea, but they were also found in persons who had never suffered from the disease. These bodies are probably the result of the calcareous degeneration of some new growth, whose nature has not yet been determined. — *Archiv für Psychiatrie und Nervenkrankheiten* 1891.

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J. KAHN.

CHOREA OF THE LARYNX.—The following case, reported by Dr. Furundarena-Labat, of Toloso, is not without interest.

Dona Venancia de Ibieta, 20 years of age, and a native of Durango, Vizcaya, presented herself for examination on the 6th of July, with the following history and symptoms: She gave no history of previous disease or of any hysterical, or pulmonary disorder, and neither auscultation or percussion revealed any evidence of tuberculosis or bronchitis. Up to the 19th of January last she had been in good health, but on that day she had been attacked by the *grippe*, since which time she had to a great measure lost her voice and was subject to a peculiar dry cough of an especially irritating character, which continued during the day, but which was entirely absent during the time of sleep. Examination with the laryngoscope revealed most curious, sudden, rapid and irregular contractions of the inferior vocal cords. These peculiar clonic convulsiform movements led to a diagnosis

of Laryngeal Chorea. Suspecting that the cause of the laryngeal neurosis might be of reflex origin, from disease of the nasal mucous membrane, the following expedient was tried :

The Schneiderian membrane was touched with a solution of the muriate of cocoaine, and it was found that during the time of action of this drug, the clonic contractions of the larynx ceased as if by enchantment. On the contrary, when an application of a small quantity of the caustic paste of Mackenzie was made to the hypertrophied mucous membrane of the nasal fossæ, there was so great a reaction produced in the larynx that the patient passed three or four days of misery, respiration being impeded, and the dyspnœa being greatly increased.

After complete removal of the hypertrophied membrane by means of the galvano-cautery, the symptoms disappeared and the cure was complete.

From the facts in this case Dr. Furundarena deduces the following conclusions :

1.—That Laryngeal Chorea may be produced by a reflex excitation of the nasal mucous membrane, and that the so-called parakinesis laryngea should be considered as a neuropathy of nasal origin, in many cases.

2.—That the treatment of these cases ought to be on the principle that "*Sublata causa, morbus facile tollitur.*"—*Revista de Medicina y Cirugia Practicas*, April, 1891.

H. M. BROWN.

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CHOREA AND THE CLIMATE OF COLORADO.—Dr. J. T. Eskridge of Denver says that many physicians in Colorado think that the high altitude adds to the severity of Chorea and some habitually send their Chorea patients to a lower

altitude. The doctor seems to have had as great success in treating Chorea in Colorado as physicians have had elsewhere.—(*Climatologist*, August.)

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CONCERNING THE RELATION EXISTING BETWEEN THE PRESENCE OF ADENOID TUMORS IN THE NASO-PHARYNX, AND THE OCCURRENCE OF "NIGHT TERRORS" IN CHILDREN.—Chaunier has maintained that these tumors were of strumous origin and that they were the cause of "night terrors;" but Dr. Ollivier, in an address before the Paris Academy of Medicine, denies this and says that he has noted the presence of adenoid growths in only 26 out of 232 cases of this neurosis.—(*Revista de Medicina y Cirugia Practicas*.)

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H. M. BROWN.

HEREDITARY ALCOHOLISM AND ABSINTHISM.—Lancereaux (*Bull. Med.* May 24, 1891) states that alcoholic abuse produces three types of inherited disorder. The first evinces itself in an innate drink-craving. The second evinces itself in dynamic neuroses, and the third in demonstrably pathological or teralological cerebro-spinal neuroses.

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J. G. KIERNAN.

ACUTE COCAINISM, WITH PROLONGED MANIFESTATIONS.—Dr. Julio San Martin reports in *La Cronica Medico-Quirurgica* the case of a patient, a chronic diabetic, very fat, in whom the disease had existed for a number of years, who had suffered for a long time from terrific pruritus vulvæ, which having been relieved by simple means, reappeared in the region of the anus, but was not relieved by applications of opium. This treatment was followed by the application of an ointment of cocaine; the relief of the pruritus was immediate, and the enthusiasm of the patient led her to make the application from four to six times daily. A few days after

she began this practice she began to suffer from insomnia, general excitement, vague sensations in the cardiac region, intense terror, which, when she closed her eyes took on the character of hallucinations, and a sensation of impending death. The pulse became frequent, reaching 120, and irregular in the extreme, the respiration became sighing, the insomnia complete, and there was great coldness of the extremities.

Attributing these symptoms to the diabetic condition, a sedative course of treatment was followed, under which the symptoms steadily increased, the possibility of their origin being cocaine applications was then thought of, and a plan of treatment, consisting of general hot baths and the use of caffein, under which the symptoms rapidly disappeared and the patient convalesced, was adopted.

Considering the small quantity of the cocaine which could be absorbed through the integument of the genitals and perineum, Dr. San Martin concluded that the accumulation produced by the imperfect elimination, accounts for the symptoms of cocaine intoxication.

In this connection attention was called to the fact that even in diabetic patients, pruritus of the vulvæ may be due to many other causes than the diabetes itself, and that in cases in which the use of applications of morphine or cocaine alone, had been unsuccessful, a favorable result might be expected from their combined use.—*Revista de Medicina y Cirugia Practicas*, June 22, 1891.

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H. M. BROWN.

A NEW SOURCE OF ARSENICAL POISONING.—Dr. Marck reports two cases of arsenical paralysis, one of which showed paralysis of the muscles of the neck, palate, and the orbicularis oculi of both sides; both recovered. The source of the

poisoning was a pet rabbit which had been stuffed after death, during which proceeding arsenic had been applied with a liberal hand.—*Wien. Mediz. Presse*, No. 10, 1891.

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G. J. KAUMHEIMER.

PERFORATING DISEASE OF THE FOOT.—Dr. A. Chipault (*Gaz. des Hop.*, July 18, 1891) discusses at length the various theories of the origin of this disease. He leans strongly to the neuropathic origin. The disorder even when occurring from varicosities has a nervous origin. It occurs among paretic demented, victims of Freidreich's disease, of infantile paralysis, of progressive muscular atrophy (the one case cited Dr. Chipault suspects of being syringomyelia). The influences predisposing to neuritis (plumbism, alcoholism, leprosy, specific fevers), also predispose to this disorder. Traumatism is a secondary, exciting and localizing cause.

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J. G. KIERNAN.

MORVAN'S DISEASE AND SYRINGOMYELIA.—Dr. Chipault in discussing the origins of perforating pedal disease, (*"Gaz. des Hop."*, July 18, 1891) leans to the opinion of Bernhardt, of Berlin (*"Review of Insanity and Nerv. Dis."* June, 1891), that Morvan's disease is a variety of syringomyelia. He says that Morvan's disease, whether it be a variety of syringomyelia, as seems most probable, or a distinct disorder, provokes on the feet and above all on the hands, trophoneuroses of extreme intensity. He has seen two typical cases.

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J. G. KIERNAN.

PSYCHOPATHIC POLLIAKURIA.—Guiard (*Annales des Mal des Org. genito-urin.*, April, 1891,) states that this disorder, first described by Janet (*Thèse de Paris*, 1890), is constituted by an exaggerated frequency of micturition 30 to 40 times daily; almost always diurnal, and met with in excessively neurotic

or neurasthenic patients. There is no pyuria, no glycosuria, no albuminuria, no pain, no renal or vesical lesion, and there are no other evidences of other cerebral or medullary lesion. Janet has found cocaine vesical distillation of value. Guiard reports four cases treated morally with success. After demonstrating to the patient by a large vesical injection that the bladder will easily contain nearly a pint of fluid, he forbids urination more frequently than six times in 24 hours. In a few days success results. This treatment of course is useless in cystitis and prostatic enlargements.

J. G. KIERNAN.

AKINESIA ALGERA.—Under this name Möbius (*Deutsche Zeitschrift für Nervenheilkunde*, 121, 1891) describes a new disease, based upon his observation of two cases, characterized by muscular pains so severe as to produce a condition simulating complete paralysis of the voluntary muscular system.

Both patients were of a decidedly nervous temperament and the family histories showed the presence of a distinct neurotic tendency. The condition came on apparently as the result of mental overwork. At first the pains were present only after great exertion, but soon the slightest movement brought them on, so that the patients refused to stir either hands or feet. In addition they were troubled with insomnia, headache, depression of spirits and deterioration of the mental powers. Hysterical symptoms were present in the one case, but absent in the other. No indications of organic changes could be discovered either in the central or peripheral nervous systems.

The prognosis is bad and the disease seems to be entirely uninfluenced by treatment. At present the one case seems to be slightly better, but in the other the symptoms of insanity have supervened.

J. KAHN.

M. BLOCQ at the "*Congres des societes savantes de Paris et des Departements*," called attention to the existence of a syndrome, dependent ordinarily on a condition of neurasthenia, presenting sufficiently peculiar symptoms, to warrant him in giving the condition the special name "*topoalgia*."

Patients suffer from a localized pain, which, however, is not confined to any physiologically or anatomically defined area. A painful spot may exist only, and may in itself constitute the disease, or it may exist in conjunction with other neurasthenic phenomena which clearly show its origin. The progress of the disease is extremely slow, often lasting for months, at times for years, and is terminated by complete recovery. A differential diagnosis should be made between this condition and the pains of hysterics and hypochondriacs. The causes which predispose to the development of this condition, are to be found in neurasthenia, and more particularly in local traumas.

It would appear that "*topoalgia*" should be considered as a clinical manifestation of a fixed delusion of sensation analogous to the fixed delusions of intelligence, but whose mechanism differs from the auto-suggestions of pain of hysteria, and the emotional obsessions of hypochondriacs.

Treatment, based on his etiological conception, presents two indications: to re-establish the equilibrium of physical strength, and to divert the fixed delusion of sensation. This latter may be, perhaps, next brought about by means of special electrical manipulations.—*El Progreso Medico*, July, 1891.

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H. M. BROWN.

NERVOUS FEATURES AND SEQUENCES OF LA GRIPPE.—Dr. Archibald Church of Chicago, read an article at the June meeting of The Chicago Medical Society with this title. The

article contains reviews of the literature of La Grippe in relation to nervous phenomena, in addition to the personal experience of the author. Dr. Church's conclusions are as follows:

"1. That there is a clinically well marked variety of influenza, which may properly be denominated nervous grippe.

2. That the infection of influenza has a marked action upon the nervous system which may give rise to acute manifestations, or to remote and persistent conditions.

3. That in the predisposed, grippe is competent to cause marked excitement, or great depression, of the motor, sensory and mental nervous apparatus."

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NERVOUS SEQUELÆ OF INFLUENZA.—The influenza epidemic of 1889-90 in the German army was followed by nervous sequelæ in 295 cases (0.53 per cent.). Neuralgia occurred in 254 cases (0.46 per cent.). Peripheral lesions in 12 cases; symptoms of cerebral irritation in 12 cases. Hystero-epileptic and epileptoid convulsion are also reported. — *Wien. Med. Blaett.*, No. 11, 1891.

G. J. KAUMHEIMER.

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## THERAPEUTICS.

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THE PRESENT STATUS OF ANTIRABIC INOCULATION.—Prof. Uffelmann is very enthusiastic in regard to Pasteur's antirabic inoculations. In the years 1886-89, 7893 patients were treated, of whom 53 (0.64 per cent.) died. In 1,336 cases the rabies of the dog was proven, either by experiment or the result of bites inflicted on animals. Of these 1,336 cases, 13 (0.97 per cent.) died of rabies. Wounds inflicted on parts bare of clothing or on the head, are the most danger

ous, the comparative mortality being: face and head, 2.36 per cent; hands, 0.69 per cent; other parts, 0.27 per cent. Cauterization of the wound seems to have no inhibitive effect. If proper care be taken, no local reaction follows the injections, Pasteur not having to note a single abscess in over 150,000 injections. That the injections are innocuous is proven by 14 cases treated at Odessa, which had not been bitten, but had come in contact with rabid animals. All remained well. Pasteur's method, however, does not diminish the necessity of isolation and observation of suspicious animals and the destruction of obvious cases of rabies in dogs, as well as a strict enforcement of a muzzle law.—*Wien. Med. Presse*, No. 24, 1891.

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G. J. KAUMHEIMER.

STRYCHNIA IN DRUNKENNESS.—Jergolski (" *Wratsch*" No. 10) confirms the report of Portugalow regarding the great utility of strychnia in drunkenness. He reports results of 10 cases, 8 of which recovered permanently. The other two, unwilling to renounce the joys of inebriety, found that liquor produced nausea and were compelled to rehabilitate themselves to its use by minimum doses. The dose to begin is 1 mg. (1-60 gr.) of nitrate of strychnia, later rising to 1-20 gr. From 6 to 10 injections are usually necessary. Portugalow claims to have cured 455 cases, and says: "I know of but two specifics in medicine, quinine in malaria, and strychnia in alcoholism."—*Deutsche Med. Wochens.*, No. 25, 1891.

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G. J. KAUMHEIMER.

TREATMENT OF EPILEPSY.—Dr. Poulet (" *Bull. Gén. de Therap.*," March 15) concludes that the bromides are the chief agents of value in treatment of epilepsy. Gold bromide is of little value. In certain cases where the bromides

fail association with them of Calabar bean digitalis and belladonna, or their alkaloids, is of service. He claims that there is an annual crisis among epileptiques, which it is important to recognize and treat by increasing doses.

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J. G. KIERNAN.

ACUTE COCAINISM.—Dr. Hallopeau ( "*Bull. Gén. de Thérap.*, June, 1891) concludes, after the citation of several demonstrative cases, that a single instillation of cocaine hydrochlorate may arouse not only immediate disorders of a grave and menacing character, but also produce prolonged and extremely painful disorders which are analogous to those observed soon after the injection. They consist of an extremely persistent headache accompanied by profound malaise, insomnia, trembling of the extremities, and attacks of vertigo, mingled with cerebral excitation shown in loquacity and great agitation. Minimal doses may provoke these symptoms which may last several months. The victims have usually an excitable nervous system. The symptoms are attributable to an elective action on the nerve centers.

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J. G. KIERNAN.

BROMIDE OF POTASH.—Cæsar Agostini concludes a statistical clinical memoir on the action of this drug in epilepsy with the following conclusions: "Bromide of potash remains, over all others, the most efficacious remedy in epilepsy.

It is necessary to administer it in rather large quantity and for a considerable period, and this treatment is compatible with a healthy condition of general nutrition.

In the great majority of cases (85 per cent) with the average dose of ten to fourteen grams (intermitting every third day) a quantity corresponding to twenty to twenty-

five centigrams per hectogram of weight of the individual found harmless in physiological experiments, produces a cessation or a notable diminution of the convulsive attacks.

The quantity given may be increased to twenty grams per diem and be continued for a long period without injury, provided the salt is pure and the renal apparatus are in a state of complete physiological activity.

The disorders ordinarily occurring in the course of the bromide treatment are for the most part transient and easily managed; and also the serious morbid symptoms of bromism disappear rather rapidly when the administration of the drug is discontinued.

A methodical and rational employment of bromide of potash prolongs life in epilepsy."

H. M. BANNISTER.

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ETHYLENE BROMIDE IN EPILEPSY.—Dr. Jul. Donath, believing that the large quantity of alkalies contained in the bromine salts to be responsible for the cachexia following their administration, has been trying various organic bromine compounds. Ethylene bromide ( $C_2H_4Br_2$ ) containing 90.9 per cent Br. was found useful. It is a light brown liquid of a sweet, burning taste. At  $0^\circ C$ . it becomes solid and boils at  $131^\circ C$ . Its sp. gr. is 2.163. It is insoluble in water, but mixes in all proportions with alcohol and the fixed oils. It is best administered in 5 per cent mixture with some bland oily emulsion or in spirits of peppermint, to be well diluted. The dose is from 1 to 3 dg. ( $1\frac{1}{2}$  to 5 grs.) 2 or 3 times a day. For children of 8 to 10 years the dose of 5 per cent emulsion is 10 to 20 drops 2 or 3 times a day. Neither acne nor bromism were observed in 21 cases. In all these cases the paroxysms were shortened and made milder.

Dr. Gustav Olah, who has charge of an institution in which from 5,000 to 6,000 epileptic attacks occur annually, has found ethylene bromide to diminish the attacks in number and intensity.—*Wien. Med. Presse*, No. 21, 1891.

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G. J. KAUMHEIMER.

ON A PECULIAR TRIGEMINAL REFLEX AND ITS THERAPEUTIC APPLICATION.—Dr. L. Kürt states that he accidentally discovered that irritation of the terminal filaments of the trigeminus in the nose or conjunctival sac would cut short laryngeal spasm. Since this fact has come to his knowledge he has used it therapeutically in 13 cases of spasm of the glottis with the result that the intensity of the spasm was immediately diminished and that the latter disappeared in from 2 to 12 days. He inserts the point of a rather stiff feather dipped in a mixture of quinine and sugar into the nostril one to four times a day. Mucus, if present, must be removed from the nose. He states that he does not think the proceeding would be of any value in cases in which the spasm depended upon irritation of the recurrent nerves by neoplasms or enlarged glands.

He also reports a case of obstinate left-sided facial spasm of six years duration reduced to such an extent by the measure that the patient could inhibit it by tightly closing one eye. Bernhard and Ninaus have each reported cases in which a similar irritation relieved spasm. The author further reports one case of spasmodic deglutition, two of spasmodic yawning, and one of petit mal with aura, which were relieved by the irritation of the nose. One case of barking cough became worse, the attacks being brought on by so slight an irritation as a drop of water applied to the eye.—*Wien. Med. Presse*, No. 21, 1891.

G. J. KAUMHEIMER.

FACIAL SPASM CURED BY HOT APPLICATIONS.—The patient was a woman, æt. 24, and otherwise healthy. The spasm involved both sides and began suddenly at night. After three weeks of futile medication the spasm ceased after the application of poultices and did not return.—DR. L. KRÜGER, *Wien. Med. Presse*, No. 12, 1891.

G. J. KAUMHEIMER.

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THE RELATION OF CHOREA TO CARDIAC DISEASE AND ITS TREATMENT.—There can be no doubt of the frequent occurrence of chorea and cardiac disease in the same individual, whatever the causative factor may be. The rheumatic virus probably furnishes a certain irritation necessary to the production of the disease, as do psychical influences or anæmia. Of all suggested remedies only two, arsenic and antipyrin, are worthy of use, with iron when anæmia exists. All movements, if possible, should be executed under the deliberate control of the will and eye, while fatigue should be avoided. The author, practicing at a watering place, does not recommend sending the patient to a spa until the acme of the trouble is well over. Mild hydrotherapy applied at home is better until the symptoms abate.—DR. GRODEL, *Wien. Med. Presse*, No. 11, 1891.

G. J. KAUMHEIMER.

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TREATMENT OF SYPHILIS.—Dr. W. Hale White, recommends the following mode of subcutaneous injection as the best in his experience for the treatment of syphilis, especially of the nervous system. The part selected for the injection is preferably the gluteal region. If the patient is liable to bed sores, inject in the upper and outer part. If this region should be for any reason unavailable, the outer and fore part of the thigh, or the biceps of the arm, are suitable

places. The needle is plunged deeply into the muscles and one eighth grain of morphine hydro-chlorate is injected. The syringe is then detached from the needle, which is left in the muscle, and an eighth grain of perchloride of mercury is injected through the needle. He gives one injection every evening and desists for a few days whenever the patient has shown any signs of salivation.

B. M. CAPLES.

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CHLORALAMIDE IN SURGERY.—Dr. Emory Lanphier says that after surgical operations he has found that chloralamide quiets restlessness and produces sleep. He says it is far preferable to the usual hypodermic of morphine for such cases. The proper method is to give from 15 to 30 grains, repeating the dose in an hour if the first one produces sleep. From 10 to 30 grains will produce 8 hours refreshing slumber. It can be dissolved in wine, whiskey, or brandy, or tincture of cardamon. The dry powder may also be taken, followed by a drink of water or tea. (*Notes of New Remedies*).

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ERGOTOLE.—Dr. Wm. C. Kloman, in an article in *The New York Med. Jour.* of June 6, 1891, extols the physiological and therapeutic action of ergotole as compared with that of ergot. He says the effect of the drug is more certain and more acceptable to the patient and the hypodermic use is less irritating and less painful. Ergotole, while nearly three times as strong as the pharmacopœal fluid extract, and representing all the active ingredients of ergot, has none of the nauseating smell, taste, or irritating properties of it. He has repeatedly given it by mouth in obstetrical and gynæcological cases and has never had an expression of disgust about the taste, nor was it rejected by the stomach. He has used it as a local application in erysipelas, cellulitis, etc., for restraining the hyperæmia, with great success.

B. M. CAPLES.

ADAPTATION OF THE EDISON CURRENT TO GENERAL OFFICE USE.—Dr. Henry G. Piffard gives a description in the *New York Med. Jour.* of July 11 of a device he has constructed by which one can obtain a continuous galvanic current, the slowly, or rapidly fluctuating galvanic current, and the primary and secondary faradic currents, also can charge a light storage battery, or light miniature incandescent lamp from an illuminating current from the street, making this take the place of the galvanic batteries in ordinary use.

B. M. CAPLES.

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ANODAL DIFFUSION AS A THERAPEUTIC AGENT.—This is the title of an article by Dr. Fred. Peterson of New York, reprinted from *The Medical Record*. Dr. Peterson uses the phrase, “anodal diffusion,” to express the power of the galvanic current in flowing from the positive to the negative pole to seemingly carry substances with it through a membrane, and from one part of the body to another. As an illustration of what this method of treatment may accomplish Dr. Peterson describes the following experiment by Dr. Ehrmann: “Take two similar glass vessels, with zinc electrodes at the bottom, and filled with a very weak solution of methyl blue. Insert the hands, one in each, and cause ten to twenty milliampères to pass for five or ten minutes. The hand in the anode vessel will be covered with blue spots.” He says that the passage of the medicine in this way may be made exact. It is essential to possess a flat metal electrode of platinum, tin, or one with a nickel plated surface. A piece of tissue, filtering paper, or linen, is fitted over the metallic surface. The solution of the drug to be used is placed on this drop by drop. In order to have drugs ready for use, discs of paper to fit the electrode may be charged with

aqueous or alcoholic solutions and then allowed to dry, a drop or two of menstrum being added when they are to be used. This therapeutic method is available when it is desired to produce local anæsthesia for neuralgia, superficial pain, and cutaneous aberrations. For the relief of pain without constitutional defects Dr. Peterson believes this to be the best method now known. The doctor has found a mixture of aconitia with cocaine an efficient anæsthetic. Helleborin produces the most deep and lasting anæsthesia of any substance, though it should be used with caution. Onabain and strophanthin, chloroform, or a weak solution of carbolic acid may be used. This method is also beneficial in tumors, rheumatic, gouty, and other swellings, and various skin diseases. He recommends it for electrocataphoretic baths for general purposes, and also for diagnostic purposes it may reveal malingering. In conclusion the doctor says: "In view of all the facts which I have adduced in this brief paper, there can be no doubt that the anodal diffusion of drugs is destined to far wider application than it has yet enjoyed, and that the general practitioner and the specialist alike will find the procedure increasingly useful as a practical therapeutic measure."

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MASSAGE IN HEADACHE.—Norstrom (" *Prog. Med.*") June 27, 1891) reports twenty cases of headache, refractory to all treatment, even electrical, perfectly cured by massage. The patients suffered from a periodical headache, not a true migraine. These were then found indurations usually on the splenius, sterno-cleido-mastoid and trapezius and even in the scalp. They were, in Norstrom's opinion, of rheumatic origin and by pressure on the nerve filaments gave rise to headache. Massage was softly done and many sittings were required.

CHRONIC UNIVERSAL IDIOPATHIC PRURITUS SUCCESSFULLY TREATED BY ALKALIES.—Prof. C. Lange, of Copenhagen, communicated four cases of chronic universal pruritus which were relatively rapidly cured by alkaline treatment, and which was instituted on account of an arthritic diathesis, from which the patients were found to suffer. The speaker was undecided whether the disease was of reflex origin from the kidneys, due to arthritic changes in the skin, or was caused by direct irritation of the nerves by the diseased blood.—*Transactions of the Copenhagen Medical Society*, April 14, 1891; *Hospitals Tidende*, No. 24, 1891.

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F. H. PRITCHARD.

SUSPENSION IN LOCOMOTOR ATAXIA AND SCLEROSIS IN PATCHES.—Dr. Gosselin (*"Prog. Med."* June 27, 1891) reports five out of eight cases of ataxia improved by suspension. In the other three cases the fulgerant pains ceased but then resulted tremblings, gastric crises, and pareses of the upper extremities. The cases of sclerosis in patches were decidedly improved.

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J. G. KIERNAN.

TREATMENT OF PROGRESSIVE MUSCULAR ATROPHY BY SUSPENSION.—Dr. Schultz reports a case of about 18 months' standing successfully treated by suspension which had resisted medication, massage and electricity. Condition on admission: Atrophy of interosseous muscles and volar eminence of left hand (*main en griffe*), the left arm and forearm pectoralis major, and to a less degree the deltoid, mouth drawn to right, speech difficult, motor power of right arm also reduced. Mainly to try something different from what had previously been tried, the author tried suspension. After the first suspension of only a few minutes patient claimed to feel a creeping in the fingers. Suspension was gradually in-

creased to 20 minutes daily. Within six weeks the left hand was in its natural position and the atrophic muscles were steadily increasing in volume and power. After an observation interval of two weeks, patient was discharged cured.—*Deutsche Med. Wochensch.*, No. 20, 1891.

G. J. KAUMHEIMER.

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MULTIPLE NEURITIS AND THERMIC MINERAL BATHS.—The prognosis of mutiple neuritis is quite favorable on account of the marked tendency of injured nerves to regeneration. It is important to bear this fact in mind in treatment, which should be directed toward placing the patient under such conditions as are most favorable to this tendency. Therapeutic measures should not be pushed unless recovery is tardy, when electricity-baths can be used. Dr. Vogt gives the results of 40 cases treated by the thermal baths of Oeynhausen (Germany). Only two were not improved and one became worse. Fifteen were cases of the primary (spontaneous) form. Eleven were of the infectious type, six being diphtheritic. Fourteen were toxic (5 alcoholic, 2 arsenical, 2 plumbic, and 5 diabetic). The baths were used at their natural temperature (32° C. 90° F.) for from 10 to 15 minutes every other day.—DR. VOGT, *Deutsche Medic. Wochensch.*, No. 16, 1891.

G. J. KAUMHEIMER.

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LOSS OF MUSCLE SENSE IN A PHTHISICAL PATIENT.—Dr. C. Eugene Riggs reports a case in *The Jour. of Nervous and Mental Disease* for July. The patient while under treatment for phthisis suddenly had difficulty in walking. She would stagger about and frequently fall to the ground. Dr. Riggs used electricity and suspension and under this treatment the patient rapidly improved until she practically recovered.

TREATMENT OF TRISMUS NEONATORUM BY SULFONAL.—Dr. Jul. Berengi (*Pest. Med. Chir. Presse*, No. 7, 1891) relates the case of an infant in whom the first symptoms became manifest on the sixth day. On the eighth day the child had five spasms in as many hours. Enemata containing 0.2 gm. (3 grs.!) of sulfonal were given besides which the drug was given by the mouth. Recovery ensued in six days. The patient had been given 10 gm. of sulfonal in that time, without the production of somnolence or other symptoms. — *Wien. Med. Presse*, No. 9, 1891.

G. J. KAUMHEIMER.

SCIATICA.—Dr. Gustavus Eliot has an article in *The New York Med. Jour.* on this subject in which he arrives at the following conclusions: "1. A large proportion of cases of sciatica are neuritis and not simply neuralgia. 2. Temporary relief of suffering should be secured by hypodermic injections of morphine and atropine, or of theine. 3. Among curative agents salicylate of sodium and of iodide of potassium are especially valuable, the former in acute, the latter in chronic cases. 4. Considerable benefit may often be derived from the administration of the more purely neurotic drugs, aconite, belladonna, and gelsemium. 5. Cantharidal blisters are of very great service in promoting the cure of the disease used in conjunction with appropriate internal treatment."

## SURGERY AND TRAUMATIC NEUROSES.

CEREBRAL COMPLICATIONS OF CHRONIC INFLAMMATION OF THE MIDDLE EAR.—Dr. Kr. Poulsen read a paper on this subject before the Copenhagen Medical Society. The cerebral complications which may accompany a chronic inflam-

mation of the middle ear are, as a rule, epidural abscess, cerebral abscess, thrombosis of a sinus or a diffuse meningitis. Now and then several of these conditions are found present together. The writer examined the post-mortem records of the Copenhagen Hospital from 1870 to 1889, and out of 10,159 cases found 28 where death was due to an intracranial affection following chronic inflammation of the middle ear. Out of these, 12 were cerebral abscesses, 8 being in the temporal lobe, of which 7 occurred in adults and one in a child. Two of the temporal abscesses were opened by trepanation; one recovered, the other died of diffuse meningitis.

Case I. Thirty-two year old woman; right sided ear affection. Brought into the hospital with headache, drowsiness and vomiting. Resection of the mastoid process was first done, yet the symptoms continued unaltered. The drowsiness remaining unchanged, trepanation was performed one and a half centimetres above the auditory meatus. An epidural abscess was evacuated, but the soporous condition still continued, with an addition to the symptoms of paresis of the left side of the face, left arm and leg. The dura was incised and quite an amount of pus streamed out of the temporal lobe; the abscess cavity was drained and an uneventful recovery followed.

Case II. Seven year old boy; right sided ear trouble. During last few days convulsions, vomiting and headache. Resection of the mastoid process. Patient was drowsy and stupid, now and then convulsions, slight paresis of the left leg. Trepanation with opening of the dura, puncture of the temporal lobe, whereupon pus was evacuated. During the few days immediately following the case went on favorably, when symptoms of diffuse meningitis developed to be fol-

lowed by death. Bergmann says that first the febrile, then the compressive and finally the focal symptoms should be considered with reference to their importance. Too much emphasis cannot be placed upon the febrile phenomena as they may be due to retention of pus in the tympanic cavity. Generally an uncomplicated abscess causes but slight rise in temperature. Of the symptoms of compression, a certain emphasis must be placed upon the slow pulse. All these symptoms are not pathognomic of cerebral abscess, but may be present in thrombosis of a sinus or epidural abscess. Varying in intensity of the symptoms has an influence on the diagnosis. Cerebral abscesses often have a very chronic course of development. Most of the writer's cases presented quite an acute course. The symptoms of compression may be entirely absent; the abscess may have a latent course of development and manifest itself at the terminal stage. Of the focal symptoms of temporal abscesses, the presence of sensory aphasia is the most prominent, the corresponding speech centre being situated in the uppermost left temporal convolution. In none of the author's cases were disturbances of speech noted, while Schede and Watson-Cheyne have communicated cases from left-sided ear affections. Paralysis of the opposite side of the body must also be regarded as a focal symptom, due to the pus working forward from the temporal lobe and acting on the capsula lentis interna; this paralysis was found in five out of eight of the writer's cases. The cases of cerebellar abscess presented none of the characteristic phenomena and especially the peculiar and staggering gait common to cerebellar affections. In all of them was a sinus thrombosis the link between the ear affection and the abscess. The prognosis of cerebral abscesses is most unfavorable. Treatment consisted

in trepanation. The writer has collected from the literature eleven cases operated on with good results. Nine cases of sinus thrombosis were found, one in the superior and inferior petrosal sinus, the remainder in the transverse sinus. Some presented no especially characteristic symptoms, others on the contrary pronounced pyæmic phenomena. Subdural or epiderral abscesses not infrequently follow sinus thrombosis; the latter may arise independent of phlebitis. The writer is inclined, with Salzer, to be satisfied with opening of the transverse sinus, without preceding ligation of the internal jugular vein as recommended by English authors. There were eight cases of meningitis with but few characteristic symptoms. The diagnosis of the cerebral accidents of otitis media chronica may oftentimes be extremely difficult. Hence one is now and then justified, when retention of pus in the tympanic cavity or mastoid cells can be excluded, in performing exploratory trepanation. This was three times done in the Copenhagen Hospital, but with negative results. In the first case the temporal lobe was exposed and punctured, the condition in question being probably partial meningitis of the posterior cranial fossa. The patient has since then been in good health. In the second a temporal abscess was thought present, but only a discoloration of the dura was found. This patient entirely recovered from the exploratory operation, but perished from a diffuse meningitis, which was lighted up by introducing a probe into the mastoid cells. In the third case there was, besides the ear affection, in a comatose patient a diffuse meningeal hemorrhage, which produced the disease process. In cases where the diagnosis is uncertain the writer would expose the transverse sinus and, if examination were negative, then the temporal lobe. Dr. E. Schmiegelow, who was present,

called attention to eight cases of otitis media which were accompanied by endocranial complications. Of these, four were published in the *Archiv für Ohrenheilkunde*, 1888. The other four are as follows:

1. Eleven year old girl, for two months otitis media—swelling and redness of the mastoid process, resection, evacuation of *a large subdural abscess, lying in the middle cranial fossa*. Recovery after two months.

2. Forty-nine year old farmer from Jutland. Left otitis media chronica from childhood. Since two months suddenly increasing headache, vertigo, rigors and emaciation. Temp.  $37.6^{\circ}$ ; pulse 60, intermittent. Mastoid region normal. Resection. Mastoid process sclerotic and as hard as bone. At a depth of  $\frac{1}{2}$  centimetre pus spurted out. This was found to come from *a very large subdural abscess, lying in the posterior cranial fossa, on the posterior surface of the petrous portion of the temporal bone*. A large burrowing abscess was found along the pharynx which was opened by a pharyngeal incision. Discharged as cured after two months.

3. Twenty-seven year old girl from Jutland. Otitis media chronica since one year. Since fourteen days violent pains in the left side of the head, nausea and vomiting. Temp.  $37.7^{\circ}$ ; pulse 70. Complains much. Swollen and tender mastoid region. Resection of mastoid process, which was as hard as ivory. At a depth of  $2\frac{1}{2}$  centimetres a cavity was discovered filled with fetid pus and granulation tissue. Increasing drowsiness. Choked disc. Patient died before the operation. The post-mortem revealed a cerebellar abscess of the size of a hen's egg.

4. Five year old boy; right-sided otitis media chronica. Suddenly he was seized with pyæmia and severe rigors. The temperature varied between  $41.2^{\circ}$  and  $35.8^{\circ}$ . Mastoid

region normal. A cholesteatoma of the size of a dove's egg removed. The pyæmic symptoms remaining unchanged, the transverse sinus was exposed, but was found normal. Later an empyema unmasked itself. Recovery in the course of nine months. Out of 1,000 cases of chronic inflammation of the middle ear which came under Dr. Schmiegelow's care, he found only eight with endocranial complications, i. e. 0.8 per cent. This is somewhat low, as many cases could not be followed and disappeared from view. He places the actual percentage at about  $2\frac{1}{2}$  per cent, or slightly above. Burkner rates it at 1.2 per cent, Bezold at 0.9 per cent, and Barker at 2.5 per cent.—*Hospitals Tidende*, No. 17, 1891.

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F. H. PRITCHARD.

TUMOR OF THE CEREBELLUM WITH DROPSY OF VENTRICLES.—Dr. F. X. Dercum and Dr. W. J. Hearn report a case in volume one of *The Philadelphia Hospital Reports*. Five months before patient came under observation he complained of general headache and pain in back of the neck. He was also subject to epileptiform attacks with loss of consciousness and stiffness of fingers and arms. He had impairment of vision, choked disc, and loss of hearing. He finally became absolutely blind and deaf. He had spells of excitement and would at times scream, and it was necessary to confine him for his violence. His gait was neither spastic nor ataxic, but simply that of a man who is generally weak. There was also loss of smell and taste. There was headache most severe on left side and in front, and tenderness on percussion in the same region. His right hand was much weaker than the left, and epileptiform attacks frequently occurred. Later in the disease there was developed optic neuritis, nystagmus, dilated, or immovable pupils. An operation was performed

with no benefit resulting, though between five and six ounces of fluid escaped from the left lateral ventricle. The patient died three days after the operation. On autopsy a tumor was found occupying the central lobe of the cerebellum, which was firmly attached to the right lobe and appeared to have originally sprung from this. In accounting for the symptoms, especially loss of hearing, smell, and taste, this must be attributed to the general increase of intra-cranial pressure. In discussing this case, Dr. C. K. Mills said, that when total deafness occurs with tumor of the brain, the tumor is liable to be found near the position of this growth, in communication with the cerebro-spinal cavity. The function of the auditory nerve is interfered with, just as choked disc interferes with the function of the optic nerve. The bilateral spasm of an explosive nature was probably due to irritation of the fifth nerve in the dura. Tapping the ventricles with hope of cure should only be resorted to in two affections: first, hydrocephalus in which there is considerable dilatation, and second, when there is evidence of pus or blood in the ventricles. Dr. Wharton Sinkler, in discussing the case, said: "The case in hand has bearings upon the practical relations of both the operation and the diagnosis of tumors in this position. The symptoms of lesions of the cerebellum are by no means constant; but there were here symptoms which are commonly ascribed to tumors of the cerebellum. It is to be said that absent from this case were certain symptoms which are to be expected in cerebellar tumor; for example, lesions of the middle lobe of the cerebellum as a rule are accompanied by ataxia or unsteady gait, but nothing of this sort was observed. On the other hand, the pain in the occiput, the nystagmus, and that curious symptom which is noticed cerebellar tumors, absence of, or diminished knee-jerk,

were present. The loss of the senses, gradual and total, was probably due to the gradual development of excessive intra-cranial pressure, but I agree with Dr. Mills as to the futility of draining away the fluid in these cases of intra-cranial pressure with the expectation of any but very temporary relief".

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FRACTURE OF BASE OF SKULL CAUSING TOTAL PARALYSIS OF BOTH SIXTH CRANIAL NERVES, AND PARTIAL PARALYSIS OF THE SENSORY ROOT OF BOTH FIFTH CRANIAL NERVES.—Dr. Eaton, of Portland, Oregon, reports this case in *The Medical Record* of May 30. M. S., male, aged 24, was injured by a large boulder striking him on left side of head. He was unconscious for two hours; at the end of this time regained consciousness. Examination showed fracture involving left parietal, left side of frontal bone, and extending down behind left ear. At intervals of about two weeks had hemorrhage from right ear and nose, and headache. On regaining consciousness found that both eyes were turned far inward, sight not injured. The corneæ are at the inner canthi. Neither eye can be turned outward, and in attempting to follow some object moved outward there is seen the peculiar combined zigzag and rotary motion characteristic of total paralysis of the lateral recti. Anæsthesia of the face marked on left side extending to the hair in frontal region and back near the vertex. Indicated implication of the supra-orbital, internal frontal, and perhaps the temporo-auricular, of each fifth pair. The only marked difference between the anæsthesia of the two sides of the face was, that that of the right side extended farther backward on the cheek than the left. Operation performed on the right eye February 16. He tenotomized internus, and divided conjunctiva.

Tenon's capsule freely opened above and below the tendon of the external rectus. Suture introduced so as to include the outer lip of the conjunctival wound, the capsule above the tendon, and the upper edge of the latter, bringing it out through the episcleral tissue vertically above the cornea. Second suture introduced and made to include the lower edge of the tendon. A third included the conjunctiva, the capsule, and portion of tendon horizontally, coming out at episcleral tissue close to outer margin of cornea. On tying the three the eye was placed exactly in the middle of palpebral fissure. Healing was prompt, and stitches were removed fifth day. The diplopia annoyed the patient when left eye was uncovered. Left eye not operated upon, patient leaving hospital. Very slight convergence of right eye remained. The doctor concludes that the paralysis of the sixth pair and sensory root of each fifth pair could be accounted for best by a lesion occurring just about the middle of the dorsumsellæ of the sphenoid, and from the hemorrhage existing so long after the accident, that fracture of the petrous portion of the temporal bone must have occurred.

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B. M. CAPLES.

TRAUMATIC CEREBRAL ABSCESS.—Dr. F. A. Southam reports the following case: A boy aged thirteen struck his forehead against the end of a sharp bolt, a slight wound being produced about two inches above the orbit on left side. He walked home after the accident and it was not followed by any symptoms for several days, except that it was noticed that he was unusually dull and heavy. On the morning of the sixth day temperature was 101.5 and he was somewhat drowsy, slight discharge of pus from wound. On exploring wound with probe it passed through small opening in frontal bone into cavity of cranium; on withdrawing probe a few

drops of pus escaped from interior of skull. Trephine at seat of injury allowed a free discharge of pus. There was a large irregular cavity in frontal lobe. Syringed out with boric acid lotion a quantity of broken down brain substance coming away. On the morning of the fifth day there was a copious discharge of cerebro-spinal fluid, continuing four days, which gradually decreased, and ceased after twelve days. Drainage tube retained for several weeks. After removal of tube wound quickly healed. Ten months after operation boy was enjoying perfect health.—*Brit. Med. Jour.*, May.

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CEREBRAL ABSCESS.—Dr. E. N. Nasson reports a case in *The Lancet* of May 30, 1891, of a boy who had a succession of falls striking on his head. The first symptoms were those of sickness of the stomach and severe frontal headache, worse on the right side. Cerebration was slow, pulse 56 to 60, temperature 104. He had severe headache one inch behind, and one inch above the external angular process of right frontal bone. Also pain in back of neck on movement. This was followed by left facial paralysis, paralysis of left arm with impairment of sensation over paralyzed areas. Tongue deviated slightly to the left, well marked double optic neuritis with distention of the retinal veins, more marked in right than in left eye. Later had rigor and temperature fell to 99.4, followed by convulsive seizure on left side of face and left arm, accompanied by conjugate deviation of eyes to left, turning of face to the left, and considerable cyanosis. The diagnosis was made of cerebral abscess situated in the substance of the brain between cortical centres of the face and arm and internal capsule. Trephined over the lower third of fissure of Rolando over temporal

ridge, one and one-fourth inches behind coronal suture. When the button was removed, dura seen bulging. One-half ounce of pus was evacuated from the lower portion of ascending convolution. Power of motion and sensation gradually returned, first from shoulder to elbow, then fore arm, wrist and hand. Complete recovery.

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PRIMARY TREPHINING FOR INJURY TO THE MIDDLE MENINGEAL ARTERY.—Routier reported a case occurring in the practice of Dr. Claudot, of a soldier who on the 13th of March, 1890, received a blow on the head in the right temporal region. All the usual symptoms of intracranial hemorrhage were manifested upon examination, and there was a distinct depressed fracture. The scalp was shaved and disinfected and a piece of bone five centimetres long and two centimetres wide was removed, directly over the anterior-inferior angle, and the bifurcation of the middle meningeal artery exposed; hemorrhage was controlled by means of an iodoformized tampon and the wound was left to granulate. There were no complications following the operation, and the patient was able to leave the hospital at the end of the thirty-seventh day.—(*Revista de Medicina y Cirugia Practicas*), April 7, 1891.

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H. M. BROWN.

A CASE OF TREPANATED CRANII FOR DISEASE OF THE BRAIN.—Dr. Söderbaum reports a case of left hemiplegia in a girl 12 years old. By the application of ice to the head and the use of Potass. Sodii internally, the paralysis of the face improved, while the paresis in the extremities remained unchanged. Several months later patient was operated on by Dr. Sennander. With the aid of the chisel a piece of bone measuring 4.5 ctm. in width and 5 ctm. in length was removed on

the right side of the cranium immediately above Broca's convolutions. Marked improvement followed the operation and in the course of two months patient had made nearly a complete recovery. The doctor does not know the exact nature of the lesion found in the brain. In puncturing the brain at several points to the depth of 3 ctm. considerable serum mixed with blood escaped, which fluid, the author thinks, might have been the contents of a punctured cyst. He thinks the condition was hardly that of a circumscribed meningitis. Special attention is called to the fact that the removed piece of bone upon replacement promptly united with the contingent parts of the calvarium, leaving little or no trace marking the field of operation. At the close of his remarks the author argues in favor of exploratory trephining for diagnostic purposes, believing that they are equally justifiable with exploratory laporotomies.—*Upsala Läkareförenings Förhandlingar* XXVI, 10, 2.

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M. NELSON VOLDING.

TREATMENT OF HYDROCEPHALUS.—Prof. Quineke reports results of attempts to relieve cerebral pressure in this disease. In the first case, a child, punctures were made through a trephine opening in the skull. The fluid was under a pressure of 29 to 30 mm. of mercury (about 1 1-5 in.). The stiffness of the neck and contractures diminished after each puncture, although the patient finally died. In the second case repeated capillary puncture of the spinal canal in the lumbar region was followed, at first, by amelioration of symptoms and finally by recovery. Q. recommends this procedure in children, especially in tubercular meningitis and the leptomeningitis serosa of Huguenin. It is not as likely to be followed by relief in the chronic hydrocephalus of adults. The largest amount removed at one time was

80 c. c. m. (about  $2\frac{1}{2}$  fl. oz). The needle is inserted just outside the line of the spinous processes, between the third and fourth lumbar vertebræ and directed toward the median line. At a depth of 2 c. m. in children and from 4 to 6 c. m. in adults, the meningeal sac is reached.—*Berlin. Klin. Wochensch.*, No. 22, 1891.

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G. J. KAUMBE MER.

CLINICAL CONTRIBUTION TO CEREBRAL SURGERY.—Drs. Oppenheim and Koehler give the further history of the case described under this title (see this Journal, No. 2, p. 61). The operation took place April 18. At the end of June she complained of slight spasm in the left side of the face and tongue. She was delivered July 21—after a normal labor. A week afterward she complained of pain in the right frontal region. At this time the wound cavity was of the size of an almond. Four and one-half months after the operation she had a typical attack of cortical epilepsy of 10 minutes duration. Fundus oculi normal. After this convulsion she complained more frequently of headache and vertigo. The left arm became heavy and she felt as if she would fall toward the left. At the end of October she had a third convulsion. A month after (seven months after operation) distinct paresis of the left arm, somnolence and vertigo were found. Death seven and one-half months after the operation. At this time the left hemiplegia was complete. Autopsy showed oligo sarcoma of the size of an apple, destroying the lower halves of both central convolutions on the right side. It contained several cysts and was surrounded by an area of encephalitis. Repeated examinations up to the time of death failed to reveal any abnormality of the retina.—*Berlin. Klin. Wochensch.*, No. 16, 1891.

G. J. KAUMHEIMER.

CRANIECTOMY IN EPILEPSY, according to Champonière, is indicated ("*Bull. Med.*," June 14, 1891) when the epilepsy is limited to certain regions, as in monoplegic epilepsy, where well localized symptoms indicate a cerebral lesion.

J. G. KIERNAN.

TRAUMATIC EPILEPSY, OPERATION, CURE.—Dr. Benda reports the case of an artillerist who was pitched from his horse, striking on his head, causing a small scalp wound. Eighteen months afterward he suddenly became unconscious. On recovery he complained of headache and vertigo and showed a very lacrymose disposition with pure hysterical attacks at intervals. Four months later epileptic convulsions began, recurring at intervals. These began with tremor of the right foot and were accompanied by tonic-tension of the right arm and leg. After mapping out the Rolandic fissure on the left side, an incision was made over this region, including the scar, and the bone chisled out in its entirety. The surface of the brain was normal. After determining the centres for arm and leg by the faradic current, a piece of the cortex of the size of a quarter and  $2\frac{1}{2}$  mm. thick, was removed, including these centres. The bone was replaced. On recovery from anæsthesia the patient vomited frequently. There was total paralysis of the right arm and paresis of the extensors of the right leg. Definite healing of the wound within five weeks. Since the operation there have been no convulsions, although a slight weakness of the right forearm and some sensory disturbance of the arm and leg remain. In the discussion, Braun (Koenigsberg) mentioned a similar case. On opening the skull, a cyst was found and removed, with temporary relief. Another operation was undertaken for the removal of thick-

ened bone, with an increase in the convulsions. In a third operation the centre for the thumb and arm was removed with recovery, which had lasted over six months.—*Wien. Med. Presse*, No. 20, 1891.

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G. J. KAUMHEIMER.

TRAUMATIC ARTERIO-VEINUS ANEURISM OF THE CAROTID.—Dr. Nissen reports the case of a child  $4\frac{1}{2}$  years old who received an injury with a pitch fork through the right upper eyelid. This was immediately followed by exophthalmos, ecchymoses, vomiting and headache. In the tenth week there was found: exophthalmos, more pronounced on the right side, dilatation of conjunctival vessels, choked disc in right eye, dilatation of retinal veins in left. Paralysis of both abducenes. A continuous humming noise, with a systolic increase, could be heard over the entire skull, but especially over right temple. This disappeared on compression of both carotids. Diagnosis: traumatic arterio-venous aneurism between the internal carotid artery and cavernous sinus. Ligature of right common carotid and intermittent digital compression of the left common carotid caused disappearance of the murmur in two weeks. Within seven weeks all symptoms had disappeared.—*Berlin. Klin. Wochens.*, No. 22, 1891.

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G. J. KAUMHEIMER.

SURGERY OF THE CEREBRAL ATROPHIES OF CHILDHOOD.—Dr. M. A. Starr read an article upon this subject before the New York Neurological Society in June. The important results of certain cerebral atrophies in infancy are of three kinds. First, cases of hemorrhage; second, cases of mental defect in various degrees; third, sensory defects. Epileptoid attacks may occur in all these forms. The symptoms of the first class are the sudden development of unilateral paralysis

after a series of convulsions attended by fever and a period of unconsciousness, and a gradual improvement. There is more or less permanent paralysis left, the paralyzed limbs being smaller and weaker than the others, with exaggerated reflexes. In cases which date from birth a proportion is due to traumatism in labor; there is another proportion in which there is no evidence of traumatism. The pathological condition in the first class is probably meningeal hemorrhage; in the second, intra-uterine encephalitis. Many cases of deaf-mutism, and cases of hemianopsia, belong to these classes. His conclusions are, that in infancy and childhood mental defects, hemiplegia, and sensory defects of a year's duration, are usually due to an incurable atrophy of the brain substance. In such cases surgical interference and treatment are useless. That the sudden onset of such symptoms in childhood do not necessarily indicate cerebral hemorrhage. Epilepsy due to this condition may sometimes be benefitted by surgical operation. In such cases the opening in the skull should not be filled with bone. Dr. B. Sachs said that in these cases operation at the time of the initial lesion might prevent degenerative changes. In the radical treatment of cerebral atrophies the entire diseased area must be removed. If epileptic attacks are to be cured the diseased area must be removed. Dr. L. C. Gray said that he could see no good to come from operations in infantile atrophies. Even if the sclerotic tissues were cut out there would be left behind a condition of cicatrix and contraction. He said he did not believe that primary ossification of the fontanelles induced brain pressure, and he thought more was expected in the surgery of cerebral atrophies than would be realized.—*N. Y. Med. Jour.*, June 20.

OPERATIVE TREATMENT OF SOME DISEASES OF THE NERVES.—Dr. Jno. B. Deaver says in *The Philadelphia Medical News*, August, concerning neuralgias, that cases traceable to no exciting cause, such as injury to the nerve, pressure upon, or irritation of the nerve trunk, involvement of nerves in cicatrix, are most favorable for operation. Epileptiform neuralgia is favorable for operative treatment. In cases of neuritis, in which the involvement has left exudates and adhesions, operation allows of recovery by breaking up the adhesions, or by developing the molecular condition of the degenerated nerve and stimulating it to take on regenerative action. In removing neuromata, division of the nerve should be avoided if possible. If during operation the division should occur, the ends should immediately be united by suture. The operation of nerve stretching for facial tic has generally failed, because the symptoms are usually due to degenerative lesion of the facial nucleus, or to cerebral irritation. Nerve stretching in tetany and athetosis is condemned. Nerve stretching in sclerosis is not advised, and, in fact, it has a very limited range of application. In all cases of nerve division, suturing should be immediately practiced. The article is accompanied by a report of a number of cases upon which the doctor operated.

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AUTOPLASTY OF THE ULNAR NERVE.—Dr. von Dittel reports a case of contused wound 15 cm. (6 in.) long and 7 cm. ( $2\frac{1}{2}$  in.) wide, in which the ulnar nerve was involved. After the sloughs had separated and granulation had been established, a strip 7 cm. long was split from the peripheral stump of the nerve, turned up and united with a similar strip  $1\frac{1}{2}$  cm. long from the proximal end by 3 catgut sutures. The wound was then covered by a skin flap. At first the result was not

encouraging, but after energetic electrical treatment, motion and sensation became nearly normal. Duration of the treatment not given. In the discussion Dr. Fillenbaum related a similar case of a defect 1 cm. long closed by nerve suture with good results.—*Wien. Med. Presse*, No. 15, 1891.

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G. J. KAUMHEIMER.

ANATOMICAL RELATIONS OF THE GASSERIAN GANGLION.—Dr. Edmund Andrews has an article in the June number of *The Chicago Medical Record* on the Anatomical Relations of the Gasserian Ganglion which determines the best method of its removal. The article is illustrated, and the doctor summarizes his studies as follows: "My studies on the cadaver lead me to prefer a different operation from that of Prof. Rose. My plan is this:

1. I make the external incisions according to his plan.
2. Tie the internal maxillary artery, cut the external pterygoid muscle near the condyle, and draw, or snip it away. The pterygoid ridge of the temporal bone is now exposed. Between the ridge and the foramen ovale there is a triangular level space some two and a half centimetres in diameter which contains no important organ. Clear away the tissues from it.

Set a two-centimetre trephine in the level triangle with its inner edge within about three millimetres of the outer border of the foramen ovale and remove the button. If the middle meningeal artery bleeds, tie it, or else tie or compress it where it enters the skull through the foramen spinosum a few millimetres outward and backward of the posterior end of the foramen ovale, or if preferred you can plug the foramen spinosum.

3. With narrow gauge forceps bite away the isthmus of bone between the trephine hole and the foramen ovale.

Then pull the nerve firmly outward, and bite away the other edges of the foramen. You now have an ovate field of dura-mater exposed with the strong inferior maxillary nerve depending from it. Draw the nerve outward, and open the dura-mater just beyond it by an incision half encircling the origin of the nerve. This will open the bursa beneath the ganglion, allowing you to look into a dark cavity; enlarge the incision sufficiently and with blunt hook and Rose's hooked knife cut the superior maxillary, and the ophthalmic divisions close to the ganglion.

4. Open the end of the capsule pretty freely and with forceps draw the nerve inward, and patiently dissect the ganglion from its firm adhesions to the roof of the capsule.

5. As this dissection is a little tedious, I think no harm would be done if the roof of the capsule were snipped away with curved scissors, bringing the ganglion with it, and allowing the convolutions to settle down upon the floor of the capsule, but it has not been tried upon the living patient.

There are four or five other ways in which the operation can be done, but this plan seems to me the best, and superior to that of Professor Rose.

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REMOTE EFFECTS OF TRAUMATISM AS SEEN BY THE NEUROLOGISTS.—This was the subject of a clinical lecture by Dr. H. C. Wood of Philadelphia. Clinical experience proves that blows upon the body and upon the head, and also violent shaking and general concussions may produce: First, local injuries and inflammation; second, traumatic hysteria; third, the condition called "railway spine," or what Dr. Wood calls "traumatic neurosis." In cases of paralysis ~~over~~ peripheral nerves from traumatism, absolute rest, leeches,

hot or cold fomentations, and all those remedies familiar to the surgeon are to be advised. After the acute stage of the injury he advises massage, electricity and hypodermic application of strychnine. In some cases operations to free the nerves from fibrous adhesions are necessary. The practical use of electricity in paralysis is a very simple matter. Milliamperes and the refinement of electro-therapeutics are of little value. A golden rule for the practical man is, in paralysis select that current which produces the greatest muscular contraction and the least pain to the patient. Another class of cases is those in which injuries of the back result in some disability of the part. The patient should be instructed to bend forward, backward, and to all sides while standing, all the movements being carried as far as possible. In cases of traumatic back the erecto-spinae muscles are thrown into a spasm by movement, the amount of the spasm being proportioned to the amount of soreness and the situation also being correspondent to the amount of soreness. The degree of restriction of movements can be better judged of by the soreness of the parts, and spasm of movements than by the statement of the patient. Reflex spasms are also induced by tapping the head and by pressure upon the back, or by allowing the patient to jar himself on his heels. General treatment of these cases of sore back consists in local rest and counter irritation, the general health being maintained. In some cases suspension and a plaster of Paris jacket are necessary. A very severe hysteria may result from the traumatism, and how far it may be due to the injury, and how far to the emotional excitement of the accident, it is hard to determine, but it is probable that a shock of the nervous system may develop hysteria. In the cases cited the diagnosis was based upon the mental and

*injection*

emotional condition indicating hysteria, also amorosis in one eye, and a lateral hemianopsia in the other with hemianæsthesia and deafness in one ear. In addition to this the exaggeration of the reflexes added to the probability of the existence of hysteria. In traumatic hysteria the prognosis is more favorable than in other forms of hysteria, and for the reason that hysteria developed independently of the injury depends upon an hereditary vice of organism. In the treatment of traumatic hysteria the result depends largely upon the management. The patient should be absolutely under the control of the physician and away from her friends. She should be in charge of an experienced nurse who knows when to be firm and unyielding and when to yield a little, and, in fact, understands the management of such cases.—*International Clinics* for April.

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## PSYCHOLOGICAL.

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### PATHOLOGY AND SYMPTOMATOLOGY.

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TUBERCULOSIS AS A CAUSE OF DEATH IN INSANE ASYLUMS. By DR. CHRISTIAN GEILL (Aarhus, Denmark).—All text-books on psychiatry teach that tuberculosis plays a very important part in the mortality records of insane asylums. The rate of per cent varies greatly. Flemming found 12 per cent of all deaths due to tuberculosis, Pinel 16 per cent, Calmeil, 20 per cent, Webster and Dagonet 25 per cent. In a list which Sankey elaborated from the mortality records of various institutions the percentage varies from 20 to 60 per cent. In one particular do statistics agree, namely, in the greater mortality of females over males. Out of 465 cases collected from the Aarhus asylum, tuberculosis was the

cause of death in one or another form 79 times (44 males and 35 females). Hence the percentage in this series is 16.99 per cent, 15.17 per cent for males and 20 per cent for females, which, if one consider that the other statistics dealt only with pulmonary tuberculosis, is quite a low rate. In 430 cases of death from the asylum at Oringe, Denmark, tuberculosis was recorded as the cause 160 times (59 males and 101 females). The percentage resulting is here 37.21 (30.1 for males and 43.16 for females), which therefore is more than double that of the Aarhus asylum. One may compare these figures with the mortality statistics of Denmark's principal cities for the years from 1885-1889, during which time 35,193 individuals (17,656 males and 17,537 females) of all stations of life above 20 years, died, and out of these 6,875 (3,706 males and 3,169 females) perished from tuberculosis. The percentage hence remains 19.54 (20.99 for males and 18.07 for females). Amongst 160 post-mortems at Oringe, the lungs were found most frequently attacked (78 times); next in frequency came the lungs and intestines (54 times); tuberculosis of the liver and intestines as well as miliary tuberculosis was found five times; finally follow tuberculosis pleuritis with empyema (4 times), diffuse tuberculosis of the peritoneum three times, tuberculosis of the intestines and peritoneum twice.—*Hospitals-Tidende*, No. 11, 1891.

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F. H. PRITCHARD.

PREMATURE SYNOSTOSIS OF THE SAGITTAL SUTURE AS A CAUSE OF A PECULIAR FORM OF INSANITY OF PUBERTY.—Dr. Wm. Swetlin calls attention to the fact that premature ossification of the sagittal suture, by diminishing the capacity of the skull to make room for the growing brain, is an exciting cause of mental troubles at puberty, especially in

girls of neuropathic ancestry. According to Merckel the growth of the skull takes place in two periods; in the first, lasting from birth to the seventh year, growth is uniform in all directions, although the occiput becomes more prominent; from the seventh year until puberty there is a period of rest. The second period of growth is from puberty to the 20th year in the male, the 24th in the female, or until closure of the sutures. During this last period, the development takes place principally in the frontal region and face. The symptoms show considerable regularity. In the 10th to 12th year, the child which has been bright and studious, is found to become indifferent, seemingly stupid and silent, with occasional outbreaks of extreme self-consciousness. At the entrance into puberty the patient has usually developed such traits of character that she is avoided as a supersensitive and quarrelsome companion. Added to this is often causeless jealousy of some person to whom she is totally indifferent. Periods of depression, often with hallucinations, alternate with periods of listlessness. Impulse predominates more and more over reason, the movements are listless and automatic, a spontaneous remark is rare, questions remain unanswered or are answered after repeated urging in whispered monosyllables. Occasionally the face becomes red, the expression threatening, the patient utters shrill cries and laughter, scolds and swears, and may attack attendants or destroy clothing. As suddenly as it came the excitement vanishes, leaving the patient more listless than before. The simplest toilet and meals may occupy hours; some light fancy work weeks or months. The lucid intervals become shorter and rarer, the stuporous condition deeper, until it reaches its acme about the 21st year. The brain, hampered in its development, has accommodated itself to the contracted

cranial cavity, the defects occasioned thereby are permanent, leaving the individual in a state of hopeless dementia until death by intercurrent disease brings relief.—*Wien. Med. Blaett.*, No. 11-13, 1891.

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G. J. KAUMHEIMER.

INSANITY OF PUBESCENCE.—Dr. Trowbridge, assistant at the Danville Insane Asylum, publishes the reports of several cases of this form of insanity in *The Alienist and Neurologist* for July. It is a distinct form of psychosis often found with other forms of insanity. It may be divided into two classes: the first may be called a simple psychoneurosis, which is a slight and temporary disturbance of the mental balance; the other is a true psychosis, the beginning of mental deterioration and incurable mental disease. Perhaps the greatest factor in this form of insanity is heredity. The term is here used in its broadest sense indicating any condition of the ancestors, either disease or morals, or other habits which tend to deterioration of offspring. The author's conclusions are: 1. It is a chronic mental disorder. 2. It is an hereditary psychosis. 3. It is a periodic or recurrent insanity, and also, as a rule, includes a moral perversion."

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GENIUS, A DEGENERATIVE EPILEPTOID PSYCHOSIS.—This is the title of an article by Lombroso which is translated from his work on genius, for the July *Alienist and Neurologist*, by Dr. J. G. Kiernan. Dr. Kiernan's comments are the only valuable part of the article and with these we heartily agree. The lack of logic and discriminative judgment which Lombroso shows in this chapter is simply astonishing, and leads us to wonder whether or not a man who is capable of such a travesty of a scientific subject is not himself a victim of

the condition he describes. In saying that the "Koran appears an illy digested work in which is found neither continuity of thought nor elementary art," etc., he apparently assumes that Mahomet composed the Koran, but of course he did nothing of the kind. Mahomet, like other great founders of religion, did not commit his teaching to writing. The Koran was written after his death by various persons, and is supposed to represent in part what he taught, this information having been gathered from tradition, hearsay and guesswork. We would suggest that Lombroso read Max Mueller's lectures on religion.

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PSYCHIATRIC DEMOGRAPHY.—Dr. Meilhots (*"Annales Medico Psych."*) has been studying paretic dementia among the Arabs. He has found that but 2.6 per cent have been attacked. All of his cases were partially Europeanized and he concludes that Arabs, when exposed to European conditions, yield to the psychosis. The exaltation type is most prominent.

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J. G. KIERNAN.

PAROXYSMAL SIALORRHOEA IN A PARETIC DEMENT.—Dr. Féré (*"Jour. des Soc. Scient.,"* May 20, 1891.) reports a case in which salivary crises occurred precedent to an epileptiform attack in a paretic dement.

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J. G. KIERNAN.

PARETIC DEMENTIA IN ECCLESIASTICS.—Dr. Bouchard, (*"Ann. Medico-Psych."* May-June, 1891), finds that paretic dementia is rare among Roman Catholic ecclesiastics in France. This, he infers, is due to the absence of sexual excess and lues, but the priest is also free from torment about his finan-

cial future ; a factor equally explicable of the rarity of the disease. American priests, exposed to financial stress because of congregational speculations, in a country which does not pay its priests like France, suffer from psychosis.

J. G. KIERNAN.

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DEMENTIA PARETICA IN WOMEN.—Dr. D. E. Jacobson, of Copenhagen, Denmark (*Inaugural-Dissertation*, 1891, has investigated this subject quite thoroughly. Nearly three-fifths of the work is taken up with histories of cases from St. Hans Hospital, Copenhagen, which furnishes quite an amount of material. Dementia is quite a frequent form of paresis in women ; otherwise the writer comes to the proper conclusion that there is no great difference between the course and symptoms of the disease in the male and female. Statistics also demonstrate that paresis in women is on the increase among the patients of the St. Hans Hospital and that the difference between the two sexes (1—3) is on the decrease. Syphilis plays an important part in the etiology.

F. H. PRITCHARD.

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EPILEPTIC INSANITY.—Dr. E. D. Fisher read a paper published in *Medical Record*, June 20, on the etiology, course and treatment of epileptic insanity before the Medical Society of the county of New York in June. He accepted the definition of epileptic insanity given by W. Bevan Lewis as that form of mental derangement the antecedent history, on-set, and further development of which shows an intimate connection with epileptic neurosis. The distinction between epilepsy and epileptic insanity is often difficult, if not impossible, to make. We might consider epileptic insanity a condition to which all epileptics are liable, and while mental impairment was often not recognizable in many cases dur-

ing the interval between the attacks, yet he was inclined to think from experience that it is more commonly present than had generally been stated. The great majority show evidence of gradual deterioration. The most important element in epilepsy is the disturbance of consciousness, especially when sudden in its onset. This stands out as the real diagnostic symptom of the disease and it indicates essentially an affection of the cortex of the brain where indeed future study must be directed if we are to find the pathological basis. The convulsions are of secondary importance since they may be due to various irritative lesions of the brain causing the same character and distribution of convulsions as seen in epilepsy, and yet having none, or few, of the characteristic mental disturbance. In fact, in epilepsy of so-called *petit mal* type without convulsions mental derangement was more common and progressive and worse than in the *grand mal* type. There is some similarity in all cases of insanity, especially in the change of the *ego*, or the relation of self to the external world. Then comes a change in the emotions, then in the thought as represented by delusions and illusions, and sooner or later dementia. It is desirable in each case of epileptic insanity to study its own characteristic symptoms in addition to those which it has in common with all others. Perhaps no class of patients presents such sudden and violent outbreaks as the epileptic insane. This shows the necessity for treatment in an institution, and they are the most troublesome of all inmates of asylums. The disease shows a chronic course. The doctor's personal experience has convinced him that bromides are well borne, and in comparatively few cases does evil follow their use.

VOMITING OF PREGNANCY DUE TO HYSTERIA.—Kaltenbach considers the obstinate vomiting of pregnancy to be due to hysteria, as no anatomico-pathological basis can be found for it. It is in line with the numerous perversions of nervous function found in this condition. Olstausen and Doléres agree with him. Induction of premature labor should be the dernier resort. He has seen several cases recover upon being assured that the foetus had been discharged.—*Berlin. Klin. Wochenschr.*, No. 24, 1891.

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G. J. KAUMHEIMER.

EXTERNAL SENSE ORGAN EXCITATION AND THE PASSIONAL PHASE OF HYSTERIA.—Drs. Guinon and Sophia Woltke conclude (*Arch. de Neurol.*, May, 1891), after careful experimentation, that the hallucinations of the passional phase of hysteria can be modified to some extent by simple excitation of sense organs. These hallucinations are always independent of the will of the operator and entirely due to the initiative of the patient, who transforms the perceived sensation into an hallucination corresponding to her habits, situation in life and memories.

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J. G. KIERNAN.

SPEECH MODIFICATION IN INSANITY, according to Dr. Seglas (*Prog. Med.*, June 27, 1891), may be derived from three sources: First, disturbances of the intelligence. Ideation is erroneous while the speech function remains intact, but as the patient expresses his ideas by words it is through these that the mental lesion is discoverable. To these mental lesions may be added, however, speech disturbances, the speech function being altered in fashion corresponding to the ideas, whence arise verbal hallucinations; B, disorders of the speech function may occur without mental lesion. In this domain are to be found aphasia and dysphasias,

organic and functional; C, the speech may be modified by the disorders of expression, thus result the dyslalias. The first group is denominated dyslogias where the intelligence is affected but the speech function *per se* is not. These intellectual disorders may result from ideation disorders or lesions of the emotions and will. The ideation disorders of speech function are divisible into four groups: Modifications in the rapidity. The discourse may be one of extreme volubility, the speech becoming very jerky; words and phrases being left out. Elliptic language. Certain patients are affected by a true logorrhœa. In inverse cases speech may be extremely slow, amounting almost to mutism, whether due to complete arrest of thought or to the inhibition of a delusional conception. Modifications in the form of discourse follow the nature of the delusional conception and the opening may be pathetic, emphatic, rhythmical, trivial or monotonous. Modifications in syntax. Some insane employ special terms of phrases. Others speak only in the third person. Others use only the infinitive. Others use surnames and changes in the kind of words. Modifications in the contents of discourse are shown in the employment of diminutives, syllables or entire phrases superadded or intercalated between words (embolophrasia) abuse of pleonosms, of sentences, of puns, of stereotyped phrases, which factors throw much light on the nature of the delusion. Neologisms and paralogisms are very frequent in the language of the insane. Some are destitute of sense; others are distortions of the usual sense; others are so created as to be absurd at first hearing, but which a minute analysis show to have a delusional origin.

PROGNOSIS OF ACUTE MANIA.—Willerding (*Allgemeine Zeitschrift für Psychiatrie und Psychisch-Gerichtliche Medicin*, 1891) concludes an article on this subject as follows:

1. About 70 per cent of all cases of acute mania are cured after running a course averaging several months.

2. Early treatment in insane hospitals has a favorable effect upon the course of the disease.

3. A family history of insanity does not necessarily make the prognosis unfavorable.

4. Cases of mania occurring as sequelæ to disease, alcoholism or pregnancy, have a favorable prognosis both as regards duration and ultimate cure.

5. Cases due to slight injury of the head usually recover.

6. The return of the menstrual flow accompanying an improvement in the mental condition is an indication of a speedy return to health.

7. The younger the patient the greater is the hope of recovery.

8. Recurrent mania presents a bad prognosis for complete and lasting cure.

9. Where the disease is of long standing the probability of recovery is poor.

10. The sudden onset of great maniacal excitement is an unfavorable symptom except in those cases following pregnancy or traumatism of the head.

11. Sudden stoppage of the maniacal excitement must raise the fear of recurrent mania or of early relapse.

12. Great increase in weight before the beginning of the quiet stage must be similarly interpreted.

13. The more severe the attack the poorer is the prospect of complete recovery.

14. Paralysis and convulsions must be looked upon as grave complications.

## THERAPEUTICS.

DUBOISINE AS A SEDATIVE AND HYPNOTIC FOR THE INSANE.—Preininger, in an article on this subject, draws the following conclusions :

1. Sulphate of duboisine is of value in mental diseases, especially in cases with excitement.
2. Its action is analagous to that of hyoscine and like that drug it may produce alarming symptoms, but only in comparatively large doses.
3. The dose which usually produces quiet or sleep, and at the same time is safe, is 0.002 gramme, nor is it advisable to use larger doses.
4. The sedative and hypnotic action of duboisine usually shows itself in from ten to twenty minutes and lasts from one to eight hours. Only in a small proportion of cases does the sleep last many hours, and for some time after awakening there is a stage of languor and exhaustion.
5. After taking 0.0025 and 0.003 gramme toxic symptoms are noticed, convulsive movements of the extremities, increase in pulse and respiration rate, rise of temperature, headache, weakness and hallucinations.
6. The necessity of increasing the dose after prolonged use seems to depend upon the idiosyncrasies of the patient.
7. The doses mentioned above were injected subcutaneously, and when taken internally the same amounts had little or no sedative action.—*Allgemeine Zeitschrift für Psychiatrie und Psychisch-Gerichtliche Medicin*, 1891.

## MEDICO-LEGAL.

DIMINISHED RESPONSIBILITY.—Wille, *Ztsch. f. Schweizerisch. Strafsrecht* III; 1890 (Abstract in *Schmidt's Jahrb.*, 4, 1891) calls attention to the need of legal recognition of the conditions of attenuated responsibility on both theoretical and practical considerations. He recognizes the following well defined conditions in which we meet with it. 1. In certain periods of life, in that of infancy and old age. 2. In certain physiological sexual conditions in females, namely the menstrual period, childbirth, pregnancy and the climacteric. 4. Under the influence of certain nervous disorders, such as hysteria, hypochondria, epilepsy, somnambulism and hypnotism. 5. In the condition of alcoholism, morphinism, fever and traumatisms. 6. Under the influence of hereditary taint, and after a former attack of insanity.

All these conditions may permanently or transiently, either alone or in combination with other external irritations, so affect the power of choice or control as to diminish or suppress it. In all such cases the jurist ought at least to take into consideration the question of responsibility.

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H. M. BANNISTER.

A MEDICO-LEGAL CASE.—Dr. W. C. Krauss of Buffalo, contributes an article on the case of Sadie McMullen, an epileptic, who was acquitted of a criminal offense on the ground of epileptic insanity. Her paternal grandparents were drunkards, her father was a drunkard, her mother was insane, and very many of her ancestors and immediate relatives were idiotic, imbecile, or insane. The patient became an epileptic at two years of age following fright, having usually had modified form of epilepsy called "double consciousness" in which she would wander away for miles, suddenly regaining

consciousness and not knowing what occurred during the unconscious interval. She would lose consciousness and move about in an automatic manner, stroll away in the woods, walk long distances, climb ladders, walk about the house at night, and would afterward have no knowledge of what had occurred. She has had slight epileptic seizures during the menstrual period. In October, 1890, she went walking with two little girls to whom she was very much attached, and when alone with them pushed them both off a bridge. One was killed, the other rescued alive. The physicians who examined her found that she had no recollection of what had occurred immediately preceding her walk with the children. The jury acquitted her on the ground of insanity.—*Jour. Nervous and Mental Disease*.

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HYPNOTISM.—Dr. J. T. Eskridge concludes in an article in *The New York Med. Jour.* of August 1 as follows: 1. That hypnotism is real, subjective, and disassociated from any mysterious influence formerly supposed to be exerted by the hypnotist over the subject. 2. That its therapeutic value depends upon the mental impressions made during hypnosis, the latter rendering one more impressionable at the time. 3. That much that is accomplished by the aid of hypnotism may be obtained by making a repeated impression without hypnosis. 4. That hypnotism may be attended by certain dangers to the hypnotist, the subject and the community, but that, so far as the reputation of the hypnotist or the health of the subject is concerned, proper precautions will enable us to prevent any untoward effects, leaving numerous dangers of a medico-legal nature to be guarded against when hypnotism is practiced by unprincipled persons. 5. That whether the

therapeutic value of hypnotism is greater than the dangers that cannot be prevented from its practice is not determined, and should receive careful attention at the hands of competent investigators, whose minds are not likely to be unduly biased by scepticism or enthusiasm. 6. That no one should be allowed to hypnotize without a license from the state to employ hypnotism. 7. That the practice of hypnotism should be limited to physicians and other scientific investigators. 8. That no one of questionable reputation should be given a license to hypnotize, and any one so licensed should forfeit it on being convicted of any crime.



## NEW BOOKS, PAMPHLETS, ETC.

MENTAL SUGGESTION.—By DR. J. OCHOROWICZ, sometime Professor Extraordinarius of Psychology and Natural Philosophy in the University of Lemberg. Four double numbers of the *Humboldt Library*. Price \$1.20—*The Humboldt Publishing Co.*, 19 Astor Place, New York.

Much is now-a-days said and written about *Hypnotism*: the more ancient term *Animal Magnetism* is not often mentioned. It is the common belief that whatever of truth there was in the doctrines of Mesmer, Puységur, and the rest of the “animal magnetizers” is comprised under the scientific term “hypnotism,” and that the modern school of Charcot, and the school of “suggestionists” at Nancy, France, represent the highest attainment in the science and art once studied and practiced by Mesmer and Puységur, and later investigated by Braid of Manchester. But here is an author who maintains that hypnotism and animal magnetism, though they have certain superficial resemblances, are radically different from each other in their phenomena and in the modes of their production, and that the facts of magnetism are incomparably the more wonderful and the more worthy of scientific study. The title of the work, “*Mental Suggestion*,” well marks the difference between hypnotism and magnetism: in hypnotism *mental* suggestion is not to be thought of, but that it exists in animal magnetism is the task of this author to prove.

The author is in every way competent to treat the subject: he is a learned physiologist and physicist, as well as a psychologist—and he has studied the matter experimentally for years. He has mastered all the literature of hypnotism and animal magnetism; his book contains an enormous amount

of information nowhere else accessible outside of the greatest libraries. Just because Ochorowicz first explored the ground thoroughly on his own account and then sifted the bibliography of magnetism, he is able to estimate the true value of the work of prior experimentors and prior students and theorizers.

It is simple truth to say that no student of human psychology can afford to neglect this most able and brilliant treatise—a work original in its method as in its points of view, and possessing moreover all the charms of a consummate literary style—in other words, consummate simplicity and clearness of expression. It is unquestionably the completest work on magnetism and hypnotism ever written: no author so well equipped for the discussion of the question ever attempted it before.

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ANNUAL REPORT OF THE MILWAUKEE COUNTY HOSPITAL FOR 1890.—We learn from Dr. Connell's report that the number of admissions to this hospital for the year was 654. The number of infants born in the institution, 28. 27 patients of the enumeration are in the retreat for feeble-minded. The number of patients at the hospital is only limited by the capacity of the institution, and it affords a large field for neurological investigation. It was at this hospital that many of Dr. Senn's famous experiments in abdominal surgery were performed. His investigations on the use of ligatures, on ligation of the ureters, and on gunshot wounds of the abdomen, were conducted here. Now that Dr. Senn has gone to a larger field we trust that the successor of this great surgeon may continue the work at the hospital so that it may be in the future, as in the past, a school as well as a hospital. Dr. Connell has had charge of the institution for many

years and has assisted Dr. Senn in his experimental work. His management of the institution has been excellent, and we trust the county authorities will have the good sense to continue him in the position indefinitely.

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ANNUAL REPORT OF THE MILWAUKEE COUNTY ASYLUM FOR THE CHRONIC INSANE.—The name of this institution does not exactly indicate its status, as it is not strictly a county institution, a majority of the board of trustees being appointed by the governor. It accommodates 125 patients and is built on the hospital plan with centre building and wings. The rooms are large and comfortable, the grounds are beautiful, and the patients have excellent care. After considerable personal observation of the asylum we can commend the excellent management of Supt. Fred. Wilkins. The amusement, comfort and health of the unfortunate patients are carefully looked after. The death rate for the past year has been astonishingly low, which is doubtless due in part to the medical skill of the attending physician, Dr. T. H. Hay, of Milwaukee. Dr. Hay has had a large experience among the insane in his former connection with the New York City Insane Asylum, and more recently as physician in the Northern Wisconsin Hospital for the Insane.

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PHILADELPHIA HOSPITAL REPORTS, VOLUME 1, 1890.—We are indebted to Dr. Chas. K. Mills, neurologist to the Hospital, for a copy of this very valuable report. This is the first annual report of the medical records of this institution, and we understand that it is the intention to hereafter issue them regularly after the manner of the reports of Guy's and St. Thomas' Hospitals, London. In addition to some neuro-

logical articles, from which we have made selections in the body of the *Review*, we give below a copy of the table of contents. Much credit is due the authorities of the Hospital for thus arranging in a readable form a portion of the valuable records of the Institution, and we trust that other large hospitals in this country will follow the example set:

The Medical History of the Philadelphia Almshouse. By D. Hayes Agnew, M. D.

Reminiscences of the Philadelphia Hospital. By Alfred Stillé, M. D.

Additional Reminiscences of the Philadelphia Hospital. By Alfred Stillé, M. D.

Reminiscences of the Philadelphia Hospital and Remarks on Old-Time Doctors and Medicine. By Lewis P. Bush, M. D.

Historical Memoranda of the Philadelphia Almshouse. By Chas. K. Mills, M. D.

Sandalwood Oil as a remedy for Cough. By R. G. Curtin, M. D.

Pyo-Hydronephrosis Caused by Pyelitis and Ureteritis of Gonorrhœal Origin. By J. B. Walker, M. D., Ph. D.

Tuberculous Ulcer of the Stomach. By J. H. Musser, M. D.  
Scurvy. By F. P. Henry, M. D.

On the Relative Value of some of the Cardiac Stimulants. By W. E. Hughes, M. D., Ph. D.

Special wards for the treatment of Typhoid Fever. By J. M. Anders, M. D.

Two Cases Illustrating the Therapeutic Uses of the Nitrites. By Solomon Solis-Cohen, M. D.

Delirium Tremens, Contusion of Eye, Abscess and Destruction of Eye, Septic Pneumonia, Abscess of Lung, Exploratory Puncture, Negative Results, Excision of Ribs, Drainage of Abscess Cavity, Recovery. By W. G. Porter, M. D.

The Operative Treatment of Stricture of the Male Urethra.  
By J. B. Deaver, M. D.

Acid Bichloride of Mercury as an Antiseptic. Its application to Surgical Practice. By E. LaPlace, M. D.

Case of Puerperal Septicæmia Simulating Typhoid Fever.  
By Clara Marshall, M. D.

Report of Twenty-Four Abdominal Operations in the Philadelphia Hospital. By E. E. Montgomery, M. D.

Report of Twenty-one Laparotomies in the Philadelphia Hospital. By B. C. Hirst, M. D.

The Practical Value of Modern Methods of Antisepsis in the Care of Infants, Including the Preparation of Infant Foods. By E. P. Davis, M. D.

The Treatment of Posterior Rotation of the Occiput. By E. P. Davis, M. D.

An Analysis of One Hundred and Fifty Autopsies upon Bright's Disease and its Relations to Cardiac Lesions, in the Philadelphia Hospital, for Five Years, 1884-1889. By H. F. Formad, B. M., M. D.

A Study of the *Bacillus Subtilis*. By J. L. Hatch, B. S., M. B.

Unilateral Ophthalmoplegia, Probably Dependent upon Thrombosis of the Cavernous Sinus, with Associated Basic Meningitis. By C. K. Mills, M. D.

An Account of a Case of Tumor of the Cerebellum Complicated by Dropsy of the Ventricles. Exploratory Operation, Tapping of the Ventricles. Death on the Fifth Day. By F. X. Dercum, M. D., and W. J. Hearn, M. D.

Tremor Simulating Multiple Cerebro-Spinal Sclerosis, but without Coarse Central Lesion. By F. X. Dercum, M. D.

Three Interesting Spinal Cases. 1. Ataxia with Progressive Muscular Atrophy. 2. Ataxia with Hemianæsthesia.

3. Hemorrhage into the Cauda Equina. By W. Sinkler, M. D. From notes by T. J. Harris, M. D.

Case of Traumatic Hæmatomyelia of the Lower Cervical Region of the Cord. By C. S. Bradfute, M. D.

A Note on Hypnotism in the Insane. By J. H. Lloyd, A. M., M. D.

Records of Several Cases of General Paralysis of the Insane. By A. J. Smith, M. D.

Erysipelas of the Eyelids Spreading Extensively to Face and Scalp. Orbital Cellulitis (?). Recovery without Impairment of Vision. By G. E. de Schweinitz, M. D.

Census of the Philadelphia Hospital for 1890.

Epidemics in the Philadelphia Hospital from 1862 to 1890. By R. G. Curtin, M. D.

Notes on the History and Organization of the Philadelphia Hospital since 1860. By C. K. Mills, M. D., and R. G. Curtin, M. D.

*The Bacteriological World*, a Monthly Illustrated Magazine for the study of Microbes and Diseases of Bacterial or Parasitic origin. Edited by Paul Paquin, M. D., V. M., Director Bacteriological Laboratory, Missouri State University, Columbia, Mo. The original article in this number is, "An Explanation of the Phenomena of Immunity and Contagion, Based upon the Action of Physical and Biological Laws," by J. W. McLaughlin, M. D., Austin, Texas. In addition to this are editorials and selected articles of great interest. *The Bacteriological World* is a compendium of the current literature of the subject from all languages, and is an excellent periodical. We heartily recommend it to all practitioners.

THE quarterly *Journal of Inebriety*, edited by Dr. Crothers, of Hartford, is a publication that contains all the current literature on the subject to which it is devoted. The writer

hereof is not inclined to accept the theory that inebriety is a disease. If, however, enthusiasm and an entertaining style can convince people, Dr. Crothers will ultimately succeed in converting the world to his belief. We are always interested in what he has to say and believe he is doing a good work.

## GERMAN.

Holst—Treatment of Hysteria, Neurasthænia and other General Functional Neuroses (adv.).

Löwenfeld—Nervous Disturbances of Sexual Origin (adv.).

Specht—The Relation of Mysticism to Insanity (adv.).

Minde—Hypnotism (adv.).

Franke-Hochwart—Tetany (adv.).

Pierson-Sperling—Electro-Therapeutics (Rev.).

Teuscher—On Degeneration Changes in Normal Peripheral Nerves.

Pal, J.—Multiple Neuritis.

## FRENCH.

Sulphonal in Psychiatry, by J. Roubinovich, Paris, France, Progrès Médical, 1891.

Therapeutics of the Neuroses, by Saillard de Raveton, Paris, France, Progrès Médical, 1891.

Evolution of Law, by Ch. Letourneau, Paris, France.

Methyl Chloride, by Brigonnet and Naville, Paris, France, O. Doin, 1891.

Electrotherapy, by Saillard de Raveton, Paris, France, Progrès Médical, 1891.

Paralysis Amyotrophic in the Domain of Poplitis, by Guinon and Parmentier, Paris, France, Progrès Médical, Publisher, 1891.

Autopsy Manual, by Bourneville and Bricon, Paris, France, Progrès Médical, 1891.

Syringomyelia, by Charcot and Bressaud, Paris, France, Progrès Médical, 1891.

Psychological Researches on the Visual Sense in Health and Disease, by Mendelsohn and Muller-Lyck, Paris, France, Progrès Médical, 1891.

Mental Diseases, by B. Ball, Paris, France, Asselin et Houzeau, 1891.

Ætiology and Treatment of the Neuroses, by Saillard de Raveton, Paris, France, Progrès Médical, 1891.

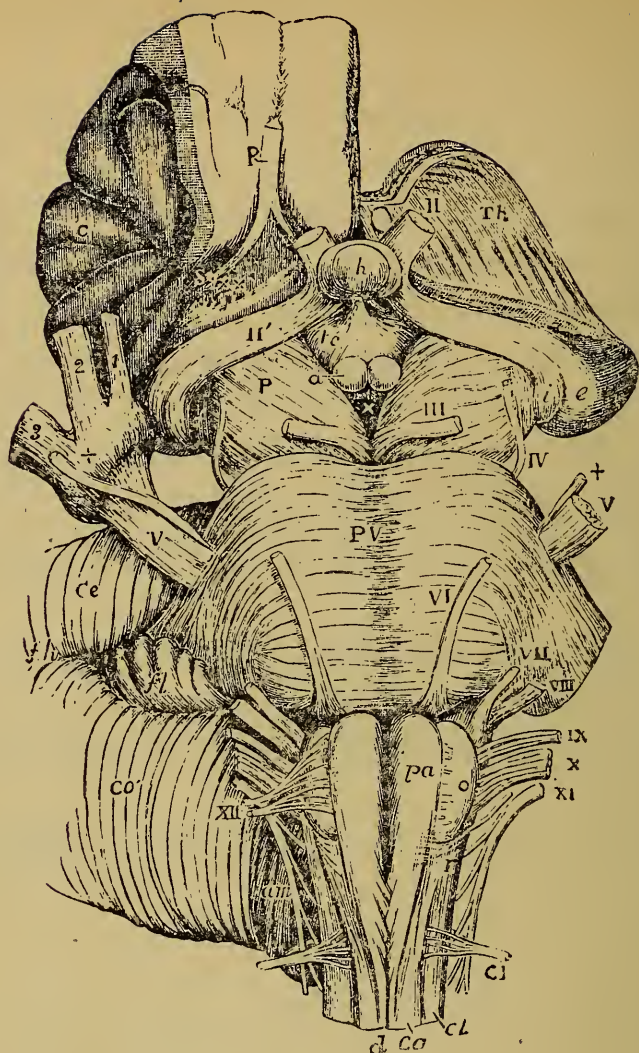
Cranio-Encephalic Topography, by Poirier, Paris, France, 1891.

Gynæcological Electrotherapy, by L. Brivois, Paris, France, O. Doin, 1891.

Insanity in Paris, by Paul Gurnier, Paris, France, J. B. Bailliére, 1890.

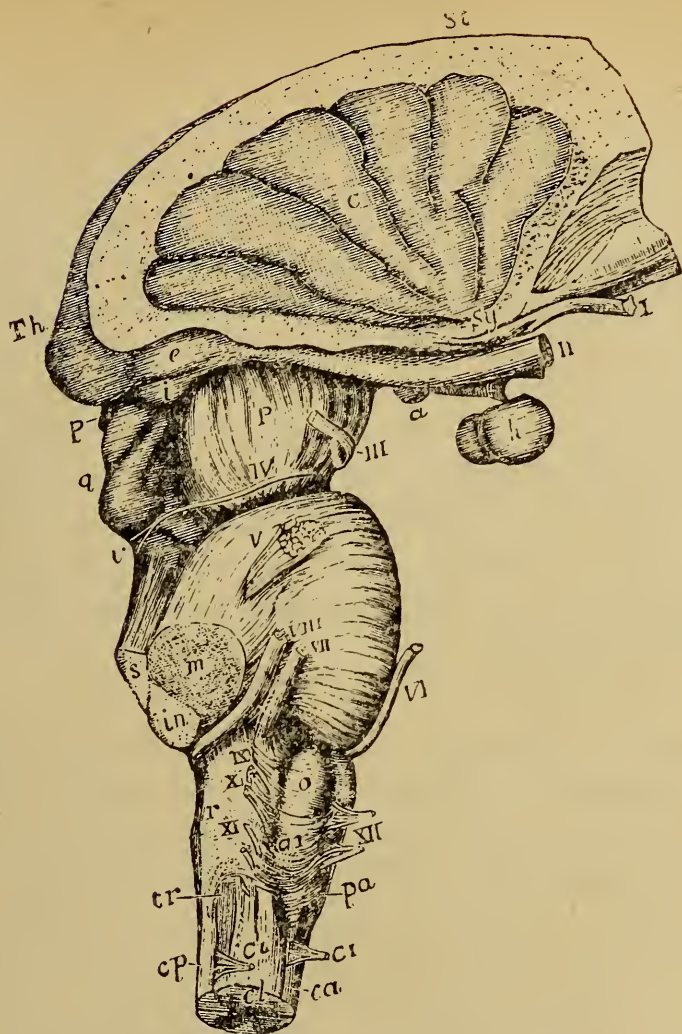
Neurasthenia, by F. Levillian, Paris, France, Maloine, 1891.





By SANGER BROWN, M. D., Chicago.

*Fig. 1.*—VIEW FROM BEFORE OF THE MEDULLA OBLONGATA, PONS VAROLII, CRURA CEREBRI, AND OTHER CENTRAL PORTIONS OF THE ENCEPHALON. NATURAL SIZE.—On the right side the convolutions of the central lobe or island of Reil have been left, together with a small part of the anterior cerebral convolutions: on the left side these have been removed by an incision carried between the thalamus opticus and the cerebral hemisphere. I', the olfactory tract cut short and lying in its groove; II, the left optic nerve in front of the commissure; II', the right optic tract; Th, the cut surface of the left thalamus opticus; C, the central lobe, or island of Reil; Sy, fissure of Sylvius; xx, anterior perforated space; e, the external, and i, the internal corpus geniculatum; h, the hypophysis cerebri, or pituitary body; tc, tuber cinerium with the infundibulum; a, one of the corpora albicantia; P, the cerebral peduncle, or crus; f, the fillet; III, close to the left ocular motor nerve; x, the posterior perforated space. The following letters and numbers refer to the parts in connection with the medulla oblongata and pons. PV, pons varolii; V, the greater root of the fifth nerve; +, the lesser or motor root; VI, the sixth nerve; VII, the facial; VIII, the auditory nerve; IX, the glossopharyngeal; X, the pneumogastric nerve; XI, the spinal accessory nerve; XII, the hypoglossal nerve; Cl, the suboccipital, or first cervical nerve; pa, pyramid; o, olive; d, anterior median fissure of the spinal cord, above which the decussations of the pyramids is represented; ca, anterior column of cord; r, lateral tract of medulla continuous with cl, the lateral column of the spinal cord.



By SANGER BROWN, M. D., Chicago.

*Fig. 2*—VIEW OF THE MEDULLA OBLONGATA, PONS VAROLII, CRURA CEREBRI, AND CENTRAL PARTS OF THE ENCEPHALON FROM THE RIGHT SIDE.—The corpus striatum and thalamus opticus have been preserved in connection with the central lobe and crura cerebri, while the remainder of the cerebrum has been removed. St, upper surface of the corpus striatum; Th, back part of the thalamus opticus; C, placed on the middle of the five or six convolutions constituting the central lobe, or island of Reil, the cerebral substance being removed from its circumference; Sy, fissure of Sylvius, from which these convolutions radiate, and in which are seen the white striæ of the olfactory tract; I, the olfactory tract divided and hanging down from the groove in the convolution which lodges it; II, optic nerves a little way in front of the commissure; a, right corpus albicans with the tuber cinereum and infundibulum in front of it; h, hypophysis, or pituitary body; e, external, and i, internal corpus geniculatum at the back part of the optic tract; P, peduncle, or crus of the cerebrum; III, right oculomotor nerve; p, pineal gland; q, corpora quadregemina; IV, trochlear nerve arising from v, the valve of Vieussens.

The following letters and numbers refer chiefly to parts in connection with the medulla and pons. V, placed on the pons varolii above the right nervus trigeminus; s, the superior, m, the middle, and in, the inferior peduncle of the cerebellum cut short; VI, the sixth nerve; VII, facial nerve; VIII, auditory nerve; IX, the glosso-pharyngeal nerve; X, placed opposite to the cut end of the pneumogastric nerve; and XI, the uppermost fibres of the spinal accessory nerve; XII, the hypoglossal nerve; pa, pyramid; o, olive; ar, arciform fibres; r, restiform body; tr, tubercle of Rolando; c a, anterior, and c p, posterior, and c l, lateral columns of the spinal cord; Cl, Ci, anterior and posterior roots of the first cervical nerve.

## MISCELLANEOUS.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.—This is obtainable, at any time, by a member of any state or local medical society which is entitled to send delegates to the association. All that is necessary is for the applicant to write to the treasurer of the association, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own society, signed by the president and secretary of said society, with five dollars for annual dues. Attendance as a delegate at an annual meeting of the association is not necessary in order to obtain membership. On receipt of the above amount the weekly journal of the association will be forwarded regularly.

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# THE REVIEW

OF

## INSANITY <sup>AND</sup> NERVOUS DISEASE.

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE  
OF NEUROLOGY AND PSYCHIATRY.

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# APHASIA

AND OTHER AFFECTIONS OF SPEECH, IN SOME OF THEIR MEDICO-LEGAL RELATIONS, STUDIED LARGELY FROM THE STANDPOINT OF LOCALIZATION.

BY CHARLES K. MILLS, M. D.,

Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic; Clinical Professor of Nervous Diseases in the Woman's Medical College of Philadelphia; Lecturer on Mental Diseases in the University of Pennsylvania; Neurologist to the Philadelphia Hospital.

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Although the terms used in describing the different varieties of cerebral speech disturbance are numerous, each is descriptive of some clearly defined symptom or syndrome, which in its turn can be referred to a more or less restricted and a localizable lesion. The medico-legal problems, criminal or civil, which may arise in connection with aphasic disorders, could be considered without any discussion of the sites of the lesions which cause these affections. In other words, a knowledge of the symptomatology of aphasias might be sufficient to enable the physician or jurist to draw conclusions as to the influence of these disorders upon mental resistance and capacity; nevertheless, some acquaintance with their pathology and morbid anatomy should serve at least to make more precise and clear the comprehension of these cases, as it should aid in materializing them to the mind of the investigator. One should be able not only to define word-deafness, word-blindness, psychological blindness, or psychological deafness, agraphia, amimia, aphemia, paralexia, etc.; but he should be able also to picture before his mental vision the

localities in the brain where the damage of disease or accident has led to the production of these symptoms.

A brief consideration, therefore, of the relations of these disorders to the particular locations of lesions in the brain may serve to make the medico-legal aspects of the subject more tangible and comprehensible; for it will thus be more clearly seen that we are not dealing with mere names and speculations, but with theories which have either been developed from, or corroborated by, observed facts. Various schemes and diagrams of the centres, and tracts of speech, and of their possible lesions, have been suggested, and almost any one of these might answer for the separation of aphasias in a study of them for medico-legal or other practical purposes. Lichtheim<sup>1</sup> indicates at least seven localities for diagnostically separable lesions without including the visual or concept centres, or some of the hypothetical inner commissures. It may easily be necessary to consider ten or more locations in the cerebrum of such lesions in a paper like the present.

One, and a prominent object of the paper, is to deal more or less fully with the effects of each or any of these separable lesions upon intelligence, mental resistance, and the ability to express thought. The task is one of exceeding difficulty, although it would be comparatively easy if we had only to treat of neatly limited lesions of centres or tracts; but brain disease rarely favors us with precise experiments, and therefore we are most frequently compelled to reason upon the effects of lesions variously combined and unusually extended or complicated.

In what will follow, I cannot of course go at any length into a description and discussion of the tracts, centres and commissures concerned with speech, and of the various

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1. Lichtheim: *Brain*, Vol. VII, January, 1885.

lesions to which they are liable. The monographs of Jackson, Lichtheim, Kussmaul and others, should be consulted by those desiring full details and elaborate explanations.

The principal brain centres or areas concerned with the phenomena and mechanism of speech are (1) Auditory (centre of auditory images); (2) Visual (centre of visual images); (3) Concept; (4) Propositionizing (centre of motor images); (5) Utterance; (6) Graphic or Writing; (7) Inhibitory higher prefrontal centres.

Of receptive centres I have mentioned only the auditory and visual for the sake of simplicity, although of course impressions received by the cerebral centres for touch, taste, and smell, and particularly by those for touch, may sometimes enter into the mechanism of speech.

The chief cerebral tracts and commissures concerned with speech are (1) The entering auditory tract which conveys inward impressions to the auditory centre; (2) The entering visual tract; (3) The commissures between the auditory and concept centres; (4) The commissures between the visual and concept centres; (5) The commissure between the auditory and visual centres; (6) The commissures between the concept and propositionizing motor centre; (7) The direct tract, sometimes used, between the auditory and propositionizing centre, instead of the innervation passing by the way of the concept centres; (8) The short commissure between the propositionizing and utterance centres; (9) The similarly short commissure between the propositionizing and graphic or writing centres; (10) The direct tract, sometimes used, from the visual sensory centre to the motor graphic, or writing centre; (11) The tract or tracts connecting the motor

cortical centres concerned with speech and writing with the centres in the bulb and spinal cord.

Restricting ourselves to this number and arrangement of cerebral speech centres and pathways, the first cerebral tract involved in spoken and written language would be the entering auditory tract—the path between the primary auditory centres in the bulb or cerebellum and the cortical centre for words, which is situated in the posterior thirds of the first and second temporal convolutions. Lichtheim has placed this path in the left temporal lobe, and believes that the radiations from both acoustic nerves and nuclei come together in this side of the brain. Word-deafness would be the chief characteristic of a lesion of this entering pathway, as it would be also of a lesion of the auditory centre itself, but in the latter case paraphasia and paralexia would also be present, as the patient would be unable to verify the correctness of his spoken words by hearing.

The entering tract for vision passes by way of the optic radiations of Gratiolet which are chiefly in the occipital lobe, from the primary optic centres in the thalamus to the cortical centres for words in the angulo-occipital region. Word-blindness would be caused by lesion either of this entering tract or of the visual centre for words. Experience shows that other symptoms, such as mind-blindness and hemianopsia, are often associated with the word-blindness, because the tracts and centres concerned with the functions of sight impaired in the latter disorders are closely associated with those which take part in word-vision. It is clear that one form of alexia or abolition of the power of reading, and also, of course, one form of impairment or abolition of the ability to write would be present in cases of word-blindness produced by lesions thus situated ;

but it must be remembered that the word-blind can sometimes write from dictation or spontaneously, largely by the aid of tactile or muscular sense; and that they can also sometimes copy printed or written text which they may not be able to read or understand, probably as they would copy a geometrical or other figure.

An important variety of aphasia from the medico-legal point of view, and one not yet defined in this paper, is that known as *verbal amnesia*, or the *aphasia of recollection*. Those suffering from this disorder may be neither word-deaf nor word-blind, nor be directly disturbed in motor speech, although the affection may be and often is combined with other forms of aphasia. Pure verbal amnesia is inability to recall the name of an object, quality, or event, although the conception or idea of it is present in consciousness. This loss of word memory may be almost or absolutely total, or it may be so slight as to be little more than a species of absent-mindedness. The proper word is not revived in the memory, although the person or thing is actually heard or seen, and is recognized. Nouns, and especially proper or general names, are the parts of speech most commonly lost, because they are the last and the least organized in the brain. Many instances of this disorder have been reported by writers.

Recent authorities are agreed as to the necessity of some area and mechanism on the sensory or receptive side of the brain, or intermediate between it and the motor cerebrum, for a higher intellectual process than the mere registration of auditory and visual impressions—for the formation of concepts in contradistinction to percepts which are represented in the true cerebral centres of hearing and sight; for the organization in consciousness of definite ideas and the

identifying of these with names. As to the existence of topographically separated centres or regions for this higher process, considerable difference exists. Some, with Broadbent, advocate a special naming, idea, or concept centre. Others do not consider that a centre for the elaboration of concepts is localized in any particular spot or area of the brain, but that this process is rather the result of the combined action of the whole sensorial sphere, and that the commissures between the sensory and motor speech centres and this conceptual sphere consist of converging radiations from various parts of the cortex to the receptive and emissive centres.

The views of Ross<sup>1</sup> on this subject are worthy of quotation, because of their intrinsic interest, and because, also, of their bearings on those problems of mental capacity and competency which are the chief concern of this paper.

“And on passing from thinking by percepts to thinking by concepts, and from that to thinking by abstracts,” says Ross, “there are no new centres introduced, but only a complication upon complication of one perceptive centre. All that can be said is that the correlative of perceptive thinking is excitation of that portion of the cortex of the brain which is directly connected with the sensory inlets, of conceptive thinking excitation of portions of the cortex which are indirectly connected with them, and of abstract thinking excitation of portions which are still more remotely connected with them. It must, however, be remembered that the effective working of the portions of the cortex which are remotely connected with the sensory inlets will, in a great measure, depend upon the integrity of those which are in direct relation with them.

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<sup>1</sup> Ross: Aphasia; in Wood's Medical and Surgical Monographs. Vol. vi, No. 1, April, 1890, New York.

“Let us now attend to the effects of dissolution of this structure. A destructive lesion of the portions of the cortex which are most remotely connected with the sensory inlets would destroy the capacity of the patient for highly abstract reasoning, and would no doubt inflict considerable damage on the language in which abstract thought is embodied, but this condition would not be recognized as an aphasia; and even the intermediate portions of the cortex in which conceptive thought is carried on might be seriously damaged without giving rise to a special speech disorder, inasmuch as any impairment of speech which might be present would only be regarded as a part of a general decay of the reasoning faculties. When, however, the lesion is situated in or near to the sensory inlets, a disorder of language results which is out of all proportion to the general impairment of the reasoning faculties. There are several reasons why the power of thought is comparatively spared under such circumstances. Thinking by means of percepts is correlated with the activity of both hemispheres, and consequently one hemisphere will carry on thought on the low level when the other is injured. And, although speech is organized in one hemisphere, a destructive lesion of one of its sensory inlets does not cut off the patient altogether from communication with the external world. The portions of the cortex the activity of which is correlated with thinking by concepts and abstracts can be reached by the word-deaf through the eye, and in the word-blind through the ear, and in those who are both word-deaf and word-blind through the nerves of muscular sense and those of the other special senses, so that thinking on the middle and high levels is not completely arrested. Inasmuch as speech is first organized in connection with the sense of hearing, a lesion in or near the

auditory cortical centre will cause, as already remarked, a greater disorder of speech than does disease of other sensory centres. Now, suppose that the auditory centre itself is spared, and the lesion is situated in the cortex near it. The patient can now appreciate a general name uttered in his hearing as an acoustic image, and he can immediately repeat it. The verbal sign, however, never sounded in his ear without reviving some kind of concept, the two being inseparable. The concept evoked by the verbal sign may be, indeed, and probably is, a very undeveloped and imperfect one, but it suffices for the purposes of identifying the corresponding percept. When, however, the excitation of what remains of the auditory centre, which is caused by the falling of the verbal sign on the ear, fades away, the percept is not capable of reviving in memory either the concept or the general name which embodies it. We see nothing in this except that less resistance is offered by the nervous structures to the passage of nerve currents from the less organized structure representing the concept to the more organized one representing the percept, than from the more organized to the less organized, but this is only a particular example of a general law. There is no occasion, therefore, to postulate the existence of a complicated mechanism of centres and conducting paths for what can be so simply accounted for."

Broadbent,<sup>1</sup> on the other hand, believes that a certain convolitional area which might be called the "idea centre," or "naming centre," exists on the sensory or upward side of the nervous system, and conjectures that it is situated on the under surface of the temporo-sphenoidal lobe near its junction with the occipital lobe, as it seems to him that fibres

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1. *Brain*, Vol. 1, January, 1887.

from all the convolutions in which perceptive centres have been placed converge to and end in the gray cortex of this region.

Rosenthal<sup>1</sup> has recorded a case of verbal amnesia without word-deafness in a patient suffering from general paralysis, which defect of speech was ushered in by an apoplectiform attack, and persisted unchanged for upwards of two years. At the autopsy, besides evidence of a chronic leptomeningitis, on old focus of softening was found in the second and third temporo-sphenoidal convolutions, the first temporo-sphenoidal convolution being quite free from disease.

After all, the existence of a special development or organization of the cortex for thinking by concepts and for the clothing of ideas in names, is recognized by authorities like Ross, Bastian and others, who only differ from Broadbent, Charcot, Kussmaul, and the school of believers in separate concept centres, in not restricting this organization to an area absolutely set apart. It is neither improbable nor unphilosophical that a region conveniently intermediate between all the receptive and emissive centres concerned in the mechanism of speech may constitute a special, but not narrowly limited, area of the cortex, which is the anatomical substratum for concepts and the names which they awaken. Either the temporo-occipital regions indicated by the observations of Broadbent and Rosenthal, or perhaps this region and also the island of Reil and retro-insular convolutions, and the cortex above and behind the posterior extremity of the Sylvian fissure, would meet the requirements. The parts played by the ganglia—the thalamus, the lenticular, and the caudate nucleus, and the amygdala — in brain action, are still obscure and almost unknown, and these

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1. Cited by Ross.

may eventually be shown to play an important part either in connection with the incoming or outgoing streams of impressions and impulses that are concerned with speech; but at present we can only reason with reference to known facts, which relate almost entirely to cortical centres and their commissures.

The chief affections of speech and of thought due to lesion of this naming, or concept cortex, whether it is regarded as an isolated area or as a complication of centres and paths spread over the whole sensorial sphere, are varieties of verbal amnesia or the aphasia of recollection, with usually additional symptoms, such as loss of understanding of spoken or written language, or of volitional speech or writing, because of the almost necessary involvement of commissures to other centres, sensory and motor.

Various degrees of loss of understanding of both spoken and written language—various affections of hearing and speech, or of vision and speech—may be due to lesions of the inner commissures between the auditory and visual centres, or between these and the concept centres; and likewise various degrees of disturbance of thought and speech from lesions of the paths between these concept centres and the motor regions for speech; and these disorders will partake of the impressive, receptive, or sensory character, on the one hand, or of the expressive, emissive, or motor character, on the other, according as the lesion is respectively towards the sensory or motor side of the brain.

Isolated word-blindness, according to Lichtheim and other observers, is the result of a break between the visual and auditory centres of word-representation.

Paraphasia and paragraphia, or disturbances in speaking and writing shown in the misuse and jumbling of sounds

and words, result from interruption in the commissure between the auditory and motor speech centre, or in the arc which unites visual, auditory and motor centres.

Beside word-deafness and word-blindness, disorders known as *psychical deafness* and *psychical blindness* occur from cerebral disease; the word-disturbances are perhaps best regarded as degrees or varieties of the more comprehensive psychical affections. The case of psychical deafness, however, may in addition to word-deafness, or perhaps independently of it, have lost general auditory memory for objects, and for sounds of definite import. In psychical blindness the visual memory of forms and colors, and of things in general, may be lost, or the power of recognizing by sight the special properties of objects may be impaired or destroyed; although even such patients may preserve sight of a lower kind, that, for instance, which would enable them to avoid obstacles placed in their path, as the psychically deaf may also by lower centres appreciate vibration or noise.

Apraxia already defined as the inability to recognize the use or meaning of objects, it will be seen might be the result either of psychical blindness or psychical deafness or of both. Apraxia and verbal amnesia are not necessarily present in the same case. It is conceivable that an individual might be able to name an object the use of which he did not recognize; and in a common form of verbal amnesia the patient is conscious of the uses and properties of things the names of which it is impossible for him to revive in memory.

It is difficult to affirm positively as to the location and extension of the lesions which produce these conceptual disorders of speech and thought. If we acknowledge the

existence of concept areas as practically distinct centres or regions, or even if we take the view that they exist as complications or elaborations of the true auditory and visual and other receptive centres, then lesions of these higher cell-clusters, particularly if extensive, might, of course, give rise to the disorders in question. Severance of association tracts between the concept and the perceptive centres may, however, often be the cause of different varieties of these psychical disorders according to the tracts dissevered. To give a simple illustration, one of my patients who was both object-blind and word-blind, could not recognize a purse by sight, but on handling it, examining its clasp, etc., she at once named it correctly; probably the tracts between the visual perceptive and higher visual areas were destroyed as well as the word centres, while the tactual centres and the lines of communication from them to the concept region were unaffected.

Dyslexia is probably most frequently due to a partial break or lesion in the commissures between the visual and the motor aphasic centres, although imperfect destruction of the commissure between the visual and auditory centres, or between those for word-hearing and Broca's convolution might cause some degree of this disorder. Paralexia, like paraphasia, may be due to severance of the communications between either the auditory or visual centres, and the motor speech regions.

The disturbances of the power of expressing thought by signs or pantomime known as amimia and paramimia, like the disorders of speech, may be both sensory and motor and may be due to lesions variously situated. Loss or impairment of pantomime is in many cases proportionate to the disturbance in speech, but the two do not always go hand

in hand, and some patients recover pantomimic power more speedily than ordinary speech. Using the terms sensory and motor in the same sense that we have employed them in speaking of aphasias proper, pantomime may also be either sensory or motor, or it may be mixed or even total; so that its seat may be in almost any part of the arc concerned with receptive, conceptive, or emissive processes. If the visual centres or entering visual tracts are destroyed, the patient will not be able to use sight in the execution of manual or other forms of pantomime in so far as they may be dependent upon vision. Even impairment or destruction of the entering auditory tracts, or of the centres for auditory images, might impair pantomime which would otherwise be called out in response to sounds and words heard. The most distinctive interference with pantomime will, however, be from destruction of centre for propositionizing and of the tracts connecting it with the concept centres on the one side, or the centres for movements of the limbs or face on the other; or from the destruction of the concept areas and their commissures. Pantomimic disorders may therefore be either amnesic or motor, or a combination of both. Some of the most interesting cases of aphasia associated with impairment or destruction of pantomimic or gesticulatory speech indicate these differences both in the form of the disorder, and in the site and extension of the lesion causing them. In an aphasic who nodded affirmatively with the head when she wished to answer in the negative, and used two fingers to express four, and made similar mistakes of pantomime, a cyst was found destroying a great part of the third left frontal convolution, the entire left island, and the neighboring medullary substance and anterior third of the corpus striatum<sup>1</sup>. This patient knew

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<sup>1</sup> Perroud, cited by Kussmaul in Ziemssen's *Cyclopædia*.

that she expressed herself wrongly, and the disorder was therefore not amnesic; but many amnesic cases have been reported.

The purest forms of motor speech defect will, of course, be due to an isolated lesion either of Broca's convolution, the propositionizing centre of Broadbent, or of the utterance centres at the foot of the central convolutions, or of both together. Such cases although not very numerous have been reported; some which are well known in the literature of aphasia which seem to clearly prove that only the loss of propositionizing power is present when the lesion is absolutely limited to Broca's convolution.

While it is true that the power of building and rehearsing in the mind a phrase or sentence, and the power of uttering are commonly lost together, still such a combination does not always exist in aphasic cases. Doubtless two processes of this kind which are so intimately connected and so often jointly lost have their anatomical substrata in closely adjoining localities, and one so-called centre might be considered, after the manner of Ross, simply as a complication or extension of the other, but still the more elaborated area is separated, even if it be by only the shortest distance, from the other.

Aphasia from destruction of Broca's convolution should give loss of volitional speech, and volitional writing, and if the utterance centre, or utterance portion of the compound centre, is destroyed also, the power of repeating and of reading aloud should also be lost. Spoken, and written words, however, could be understood and the faculty of copying retained.

The destruction of the short commissures between propositionizing and graphic centres must nearly always take place

in lesion of Broca's convolution and its sub-cortex, and hence give both motor aphasia and agraphia.

I have reported an interesting case which shows clearly that utterance may be largely abolished from a limited cortical lesion while propositionizing power remains intact. This was a case of oro-lingual monoplegia in which a focus of strictly cortical yellowish softening was found involving the lower extremities of the central convolutions, both on their external and Sylvian surfaces, and a spot one-half inch in diameter about the middle of the internal portion of the island of Reil. This softening reached into the fissure of Rolando, and also into the precentral fissure, but it did not reach to the anterior branch of the Sylvian fissure, its anterior limit being one-fourth of an inch from this fissure. In this patient the muscles of articulation were distinctly involved, giving an oro-lingual mono-paresis. He could talk, but pronounced certain words indistinctly. He comprehended objects and words by hearing and sight, and could read understandingly, but could not pronounce well owing to the above described articulatory defect. He had no difficulty whatever in propositionizing.<sup>1</sup>

Clearly in most cases of destruction of the motor speech centres, as the sub-cortex usually to some extent takes part in such lesions, commissures of some kind must be involved, and hence varieties of commissural or conduction aphasia are nearly always blended with the motor disorders, but these are often recovered from in part or whole.

Agraphia, or the loss of the power of writing, which may, of course, be of the highest importance in various medico-legal directions, may be due to lesions variously situated, and may therefore be of several varieties. I have already spoken

of what might be termed the sensory forms of agraphia due to lesions of the visual centres or of the entering visual tracts; but even motor agraphia is of several kinds. The patient, for example, may be unable to write spontaneously, although he can from dictation, and he may at the same time be able to copy either written or printed text; or again he may not have the ability to write either from dictation or by copying. Lesions situated in several places may give rise to motor agraphia; for instance, in the first place, a lesion of the special motor centres concerned with writing. Agraphia may again be dependent upon lesions of the tract uniting the concept with the speech and writing centres, and if a direct separate tract exists between the visual and graphic centres, the power of copying may in such a case be retained. As propositionizing is as necessary to volitional writing as to volitional speech, destruction of the left third frontal will cause more or less agraphia as well as aphasia.

"The same result," says Gowers<sup>1</sup>, "follows an isolating lesion just beneath the cortical centre, and hence the path to the arm centre must be by the 'associating fibres' of the subjacent white substance, and not the gray matter of the cortex. But it is conceivable that a sub-cortical lesion may be so placed as to interrupt the paths to the internal capsule and to the opposite hemisphere, and not that to the arm centre. In such a case there would be permanent loss of uttered speech without loss of the power of writing. Such a condition has actually been observed."

The form of infra-cortical affection of speech which results from lesion of the tract or tracts connecting the cortical centres with the nuclei of the bulb and spinal cord, is of considerable interest and importance,

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<sup>1</sup> Manual of Diseases of the Nervous System, American Edition, Page 545.

because of the frequent disturbance either by pressure or destruction of this portion of the cerebrum. In many cases of hemiplegia, aphasia, at first very prominent and positive, after a time disappears in large part or even almost entirely, the paralysis of the leg and arm remaining very pronounced. Some of these cases are to be explained by the fact that the intra-cerebral facial tracts are only affected by pressure, and in others even when they are more or less destroyed, the opposite hemisphere assumes the work of both. The common view is that the bilateral movements which occur during speech may be innervated from each hemisphere. More or less complete destruction of the fibres which connect the oro-lingual and other facial areas of the cortex with the nuclei of the various nerves concerned with articulation and phonation, does sometimes give a disorder of speech, which has been variously described as *pseudo-bulbar paralysis*, *labio-glosso-pharyngeal paralysis of cerebral origin*, *aphemia*, etc., and cases have been reported by Kirchoff, Ross, Hobson, Bastian, the writer and others. These patients articulate with difficulty; paresis or paralysis of the tongue is present; labials and gutturals and linguals may be all troublesome to pronounce; drawing of the face will usually be present; swallowing may be difficult, the movements of the jaws may be impaired; and drooling is a frequent symptom. In such cases interference with speech is sometimes extreme amounting almost to complete speechlessness. While such a train of symptoms usually accompanies a generalized hemiplegia, it is occasionally observed unconnected with paralysis in parts other than the face.

This pseudo-bulbar paralysis is a more decided and permanent affection when the result of bilateral disease, but

a form of it can occur from a deep seated lesion of the left hemisphere only. Strictly speaking, Broca's convolution is not directly connected with the basal nuclei, but indirectly through the utterance or glosso-labio-pharyngo-laryngeal cortical centres, and the larger portion of the fibres which go down from these centres to the bulb pass by way of the left hemisphere, although a partial decussation probably takes place. If a commissure connects the speech or utterance regions of the two hemispheres, it will be comparatively close to the cortex, and destruction of this commissure as well as of the fasciculus to the bulb, would account for some of the infra-cortical speech, or articulatory disturbances.

The following quotation from Lichtheim<sup>1</sup> is of value as throwing light upon the peculiarity of disturbances of speech from lesions of the white matter of the cerebrum:

"Lesions of the deeper portion of the brain, followed by disturbance of speech, moreover, do not bring about aphasia with its characteristics as a verbal trouble; the formation of sounds is more or less prominently interfered with. This verbal characteristic of the cortical symptom is a natural consequence of the functions now usually attributed to the cerebral centres in general and of the innervation of those concerned in language especially. If we presume that Broca's sphere is the seat of acquired motor word-representation (kinæsthetic centre), and that its lesions obliterate these memories, and so give rise to aphasia, it follows that its destruction must affect *words* and not *sounds*; for those representations acquired during childhood are associated with words only. It is at a much later period of development that we have learned to decompose

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<sup>1</sup> Lichtheim: *Brain*, January, 1885, p. 481 and 482.

words into sounds. As the elements for the formation of words are deposited in the cortical centres of speech, so the dispositions for the production of sounds are made in the bulbar nuclei. The paths, therefore, between Broca's centre and the nuclei will have to undergo a corresponding conversion. The question is now where this conversion takes place; whether low down in the pons, as Wernicke supposes, or, as I think, much higher up, basing my opinion on the fact that disturbances of speech, arising from lesions of the deeper cerebral regions, do not, as just mentioned, partake of a purely *verbal* character.

"All these considerations compel us to assume that only a short extent of the efferent tract from Broca's centre is so constructed as to give rise, on being injured, to real aphasic disturbances. We shall therefore have to look also for the lesion of aphasia without agraphia in the white matter of the hemispheres, though we can yet scarcely conjecture its localization. Two new contributions, the results of which, however, are scarcely concordant, point, not to a simple radiation of the fibres from Broca's convolution towards the internal capsule, but to a more complicated arrangement."

Before taking up for consideration special forms of speech disorder, beginning with the receptive or sensory affections, a few general remarks might be made on the mental status and integrity of cases of sensory or receptive aphasia as compared with cases of motor or emissive form. In general terms it is doubtless true, as various authors have expressed themselves, that mental capacity and its manifestations are more impaired in those forms of amnesia or aphasia which are the result of lesions on the sensory side of the brain, that is, in word-deafness,

word-blindness, in the various forms of apraxia or mind blindness, and in those combined forms of speech and pantomimic disturbance which are due to lesions of the receptive or impressive mechanism of speech. Words seen or heard fail to revive the ordinarily appropriate ideas in memory. Mind-blindness is not always associated with word-blindness, nor psychical deafness with word-deafness, but when such an association is present it would require the closest scrutiny of the particulars of a case of alleged capacity or incapacity to determine the true status of the individual, and the presumption would be rather against than in favor of the preservation of mental power for definite purposes. More commonly than otherwise, word-blindness and word-deafness are present in the same case, and quite often the more serious psychical disorders are also associated. While, however, all this is true, it is not correct to teach that word-deafness, or word-blindness, or even mind-blindness or psychical deafness necessarily destroy mental integrity to such an extent, as to shut out testamentary capacity, the ability to make contracts, to testify as a witness, or to take care of one's person or property.

What is the mental status of a case of word-deafness? With what voluntary acts would such an affection interfere? Perhaps first in importance comes the question of testamentary capacity and similar exercises of mental power in assenting or dissenting to legal papers. Gowers says that word-deafness is incompatible with will-making, because it is impossible to know whether the testator really understands what is said to him, but this is putting the matter too strongly. If the individual is only word-deaf from lesion of either the entering auditory tracts or of the auditory centre, but still preserves full cerebral visual power,

and intact lines of communication between the visual centre and the motor areas for speech and writing—a will might be made, or other legal papers, such as deeds of trusts, contracts, etc.,—be drawn up and express the real intentions of the individual in question. It ought not to be necessary, in other words, for competency that the person should be responsive by every channel of communication. This as so many other cases of the kind we are discussing, should be studied on its own merits, and testimony as to how the disputed act was done should be clear and unmistakable. Evidently a completely word-deaf patient could not express either assent or dissent by hearing, and peculiar statutes might have some bearing on the capacity of a case of word-deafness; for instance, if it was required by statute that the testator should be addressed by spoken words. If he was capable of assenting or dissenting with certainty by any of the legitimate or legal means of communication, he might be competent.

According to Bastian, word-deafness, when caused by a lesion of the left auditory word centre, must always be associated with aphasia and agraphia—that is, a completely aphasic condition. This is because names cannot be recalled voluntarily or by association. This assertion of Bastian's is probably too sweeping, but has in it a large measure of truth. Some word-deaf patients are or become able to communicate in spoken or written language, but if the lesion is complete the interference with all methods of communication will also be nearly complete until new centres are educated and new lines of communication opened, or compensation takes place through the other hemisphere. Complete word-deafness is therefore a serious affection in its direct effects on thought and its expression,

and also because of conditions with which it is likely to be complicated. Bastian says that a totally word-deaf patient might perhaps not understand written language, but acknowledges that this ability might persist to some extent through the action of the opposite hemisphere. In spite of the seriousness of word-deafness, it is, however, a mistake to conclude too hastily that the individual is either incompetent, or in any technical sense insane. I have already referred to several cases regarded as demented chiefly because of their word-deafness, but who were demonstrated not to be in any true sense insane.

Word-deafness is one of the forms of hearing and speech disturbance from which partial recoveries are frequently and total recoveries sometimes made. In a number of the cases of combined sensory and motor aphasia which I have observed at the Philadelphia Hospital, word-deafness at an early period almost complete, rapidly or gradually disappeared, but not always fully. Many of the patients responded to the last with difficulty or slowness to spoken words. I am referring now particularly to cases which persist as marked instances of hemiplegia and motor aphasia. In the consideration of the medico-legal aspects of word-deafness that patients improve or recover should be constantly borne in mind. The most conflicting testimony might be truthfully given about the condition and the competency and responsibility of an individual, if such testimony was based upon observations made over a period of a few years or even a few months.

The case of the French Professor Lordat, which has become classic in works on aphasia, is interesting in this as in other particulars. After a fever he suddenly lost his powers of speech and was word-deaf. Words fell unrecog-

nized upon his ear, but after many weeks he recovered, resumed his professorial work, and wrote a valuable analysis of his own case. The following case of Schmidt, quoted by Kussmaul, is interesting as showing the characteristic symptoms in a word-deaf case, and also illustrates the fact that word-deafness and high grades of verbal amnesia can in large part disappear :

“A woman, 25 years of age, became suddenly unconscious, during severe straining at stool, ten days after confinement. After consciousness returned she was not paralyzed, but suffered from aphasia and paraphasia. She found words with difficulty or not at all, reversed or mutilated them, said “butter” instead of “doctor”, threw out letters and syllables, inserted others, used the infinitive instead of the proper mood, and conjugated irregular verbs regularly. She was thought to be deaf because at first she did not understand a single word. It was soon discovered, however, that she heard a knocking at the door or the ticking of a watch as clearly as a well person, that she could distinguish between two house clocks by the tone, etc. Words on the other hand, as she afterwards stated, were perceived only in a confused murmur. She heard separate vowels and repeated them. When a word of one syllable was spoken in the ordinary way, she did not understand it, but when the different letters were separated distinctly from each other, so that they stood forth in the pronunciation, she was able to repeat the word. With words of more than one syllable it was necessary first to pronounce one syllable distinctly, then another, then the two together, or she would not understand the word. It was the same thing with reading. She studied the words very carefully, and tried to pronounce them at first separately and then together. Recovery took place

slowly. She did not understand short sentences until after the lapse of half a year, and then only when they were pronounced slowly and distinctly. Even at the last there remained some difficulty in speaking."

A word-deaf patient might be able to write a will understandingly; he might retain or soon acquire sufficient powers of speaking to give assent, or dissent or even to express an opinion; he might retain certain powers of pantomime, visual centres and connecting tracts remaining undiseased and pervious, and the motor areas for pantomimic speech not being destroyed. It must not be supposed, however, that his condition would be as high mentally as that of a deaf and dumb patient from peripheral disease as scarlet fever, who had with the aid of vision trained himself in the use and comprehension of sign language. Although secondary atrophy of hearing or speech centres occurs in cases of peripheral deafness, a disturbance of mental equilibrium occurs and to some extent persists in cases of cerebral deafness which is not present in the ordinary deaf and dumb. Cerebral centres and lines of communication are at first untouched in the latter cases, and the visual and manual training which is pursued takes possession of and utilizes everything possible.

Lichtheim records a valuable case of word-deafness from lesion of the cerebral entering auditory tract, a rare form of recorded lesion. This patient, although word-deaf, differed in striking particulars from a case of word-deafness or speech-deafness from lesion of the centre for auditory images. While, for example, he could not understand spoken language, had lost the faculty of repeating, and that of writing to dictation, he preserved intact volitional speech and writing, the understanding of writing, the ability to

copy words, and finally, the faculty of reading aloud properly, these last being lost in cases of auditory centre deafness. He had neither paraphrasia nor paragraphia, because the arc uniting auditory, concept, and motor centres was unbroken. This man's available mental power was greater than that of an ordinary case of word-deafness. He was in fact a teacher and journalist, and continued with success the business of writing articles for the newspapers. He could not understand speech, but could noises and other sounds of definite import. He spoke with absolute accuracy, but with a slight drawl; he could find substantives, even complex ones, and proper names; he copied and read aloud correctly and fluently and his intelligence of written language was intact. He copied an I. O. U., written by Lichtheim, and gave it to his wife, remarking "You see, you have money."

A variety of curious problems may be presented by patients suffering from pure word-blindness, or from this and some of its usual complications, as word-deafness, psychical blindness or deafness, verbal amnesia or paralexia. I have already stated for instance, that the word-blind can sometimes write spontaneously or from dictation, or even be able to copy writing which he does not understand. Such matters as the simple signing of a name to a check, to a will or other document are often the points in dispute, and yet the ability to do this is retained in many cases where the patient is not only word-blind, but so completely as to be able to do nothing else but make his autograph. Letters may be understood when words are not. The understanding for figures may be lost or retained. A patient reported by Broadbent—a case which, after a time, fell into my own hands—could not at first tell how many two and two made, but in two weeks learned to add together two low

figures, and rapidly thereafter gained in his understanding of figures. Trousseau has recorded the case of an accountant who could read off the sum 766, figure for figure, but did not know what the figure 7 meant before the two 6s. Proust, cited by Kussmaul, records another aphasic, who, although he could no longer count in words, could add and subtract on paper and even multiply pretty well.

That an individual is not able either to read or to write because of word-blindness, should not absolutely invalidate the writing or signing of a will or other document, although such a patient is not in exactly the same condition as one who has never been educated to read or write, or has lost sight through extra-cerebral disease. The general mental impairment which goes with such disease, the possibility of the existence of hallucinations or delusions, and the disturbance of the equilibrium of thought processes must all be taken into consideration.

Some cases of interest in connection with the discussion of word-blindness and of agraphia are mentioned by Le Grand du Saulle and Bateman. • An aphasic, 50 years old, wished to make a will, and desired to leave an old domestic a remembrance of some importance. He made the most strenuous efforts to get together words and express on paper his will in the matter, but the words would not form an intelligible sentence, and the writing was incorrect and in some places undecipherable. This defect of co-ordination, of the will and of movement, could not be overcome, and he died before he could make the will he so much desired, to the grief of the testatrix.

Boucher (de Sancergues) tells of a similar case. In January, 1865, he was called in by Dr. Poinset to see a hemiplegic affected with word amnesia. He wished to

make a will and give a certain sum of money to a relative who had taken great care of him. In spite of the most expressive gestures and pantomime he had great difficulty in making himself understood. He succeeded, however, and the clue found, he was able to carry out his wishes.

I have already referred to the Hoffbauer's, a case of a man, in Munden, in 1843, who demanded of the Hanoverian government to make a will and dispose, by signs, of his property to his wife. His request was written from his dictation, although he could neither speak, read, nor express his thoughts in writing. On the advice of the legal physician Holman, three interpreters took his testimony, and his wife obtained possession of the property.

The proof of the testamentary capacity of a word-blind patient, or the validity of a written instrument alleged to have been prepared by or for him, and having his signature, would have to depend largely upon collateral evidence. If, for example, it could be shown that such a patient had written a short contract, will or other document, and then had had it read to him, and had signified his assent to its contents, and if the evidence was in favor of his general mental stability, his testamentary and general mental capacity should be sustained. If it should be attempted to prove that such a patient had read a document in question and thereby assented to it before signature, the evidence would be against its validity and his capacity. A word-blind patient recognizing his defect, but not being word-deaf, and in possession of his general mental faculties, might have a will or other legal paper written for him, and then read to him, and signify his assent to its contents by gesture, by his autograph, or by his mark. The possibility of deception having been practiced upon the writer or testator in such a

case, should, of course, be taken into consideration, and eliminated.

Word-blindness, like word-deafness, often improves so as to change the visual receptive powers, and possibly the capacity and competency of the patient. The following case of Van den Abeele, cited by Kussmaul, is interesting in this and in other respects.

"A woman, 45 years of age, was struck with apoplexy while in the enjoyment of the most blooming health. After some hours consciousness returned, but she was paralyzed upon the right side and had pain over the left eye; her intelligence was somewhat dull, the memory weak, the speech free. Six weeks later, the paralysis and weakness of memory and intelligence had almost disappeared. Two months after the attack she discovered that she could neither read printing nor writing; she saw the text, distinguished the form of the letters, and could even copy the text, but was incapable of translating the words into spoken words and thoughts. She comprehended pictures and could decipher a rebus; she understood consequently ideographic representations, but not writing. When Van den Abeele published this observation, the patient had already regained the power to read some words of one or two syllables."

Both the visual centre and one or more of its commissures were probably injured.

The following unreported case was seen by me only once, and the history is wanting in details, but it will serve to illustrate some of the points likely to arise in the settlement of problems associated with conditions of word-blindness and verbal amnesia.

The patient was a married woman, 66 years old, who had always had fairly good health, although for several years in

the spring she had suffered with rheumatic pains, and a few years before coming under observation she had passed a renal stone of large size, and a second smaller one two or three years later. In June, 1887, during the first attack of renal colic, she had a partial loss of power in the left arm from which she had never entirely recovered; she also had a scarcely perceptible weakness of the left leg. In June, 1887, she was taken with violent headache and vomiting. The pain was worse at the back of the head at the left side and continued for a week to come and go, after which time she noticed some loss of memory and peculiarity of vision.

Examination showed that she had right lateral hemianopsia without Wernicke's pupillary inaction. Testing her in a variety of ways, it was found she could recognize objects seen, heard, felt, smelled or tasted. Until a short time before the examination, she had been able to recognize persons on the street although she could not name them, but this power of recognition of persons was leaving her. She understood what was said to her. She had four sons and evidently could tell one from the other, but could not correctly name them, just as likely as not calling one by another's name. She understood what was read to her, but could not read, as she did not understand printed or written words. She could sign her name and write a few short words at dictation, although the writing except her name was so imperfect as to be almost illegible, except in the case of a small word like "cat." She could recognize an object by sight, hearing or touch; she could not name it correctly from seeing it, but could do so from touch, or, after it was told to her, she would indicate that she knew the name but could not recall it. She called a stamp held before her a "ticket" or a "letter;" and said she knew what

it was, but could not name it. She called pills, "pencils," but knew what they were used for although she named them wrongly. When a paste bottle was held up before her she named it correctly, but called a postal card a "stamp," although she knew what it was. She called a watch a "key," and said it looked like a key. When some keys were held up before her she said they were "locks", and evidently knew their uses. On holding a pocket-book before her, she could not name it, but named it quickly when she took it in her hand. She called a green stamp, "brown;" a pale blue one, "pink;" a dark red one, "red;" an olive green, "blue;" and red, "blue." She said a "G" looked like an "I." When shown the word "royal," she said each letter was "I." She could not name the separate letters or recognize the word; and did not show that she appreciated her mistakes as to words and letters when she was corrected.

In this case the centre for word-vision and the commissures between it and the concept centres were impaired by disease, and probably also to some extent the concept centres themselves.

The medico-legal bearings, civil and criminal, of verbal amnesia, or the aphasia of recollection, open an interesting field and one not altogether unexplored by writers on disorders and disturbances of speech. It is rarely an isolated symptom. It is frequently associated with apraxia in some of its forms, or with word-blindness or word-deafness or both; it may indeed be combined in the same case with almost all other aphasic affections. Most commonly, as would be expected, it is combined with the sensorial aphasias and apraxias. I have already discussed the question of special naming or concept centres, leaning to the views of those who hold to the aggregation of these concept centres

into a more or less isolated field or zone ; but I do not believe that this concept field is limited to one spot in the sensorial sphere. When our more perfect knowledge of localization is attained, it will probably be found that the concept region of the brain is a comparatively large but connected area, interlacing among various centres for percepts in such a way as to make certain portions of it conveniently intermediate anatomically between particular percept centres and the special motor or emissive centres with which they are most intimately correlated. Lesions somewhat variously distributed and extended will, therefore, give rise to forms of amnesia and apraxia ; and strange symptom-pictures, difficult to analyze and to refer to these lesions, will sometimes be presented to the clinician and medical jurist.

The loss of the faculty of recalling words must interfere to some extent with the acts of thinking as well as with expression. Kussmaul, commenting on several well studied cases, shows that verbal amnesia, and the more profound derangements of memory with which it is often associated, may interfere with the evolution and processes of thought ; and that in some of its severer grades it makes well regulated thinking aloud impossible, although even in these cases the affection is not always incompatible with silent thought. Mental combinations consummated without words, as, for instance, those used in games are not always impossible. He holds, and doubtless correctly, that amnesic aphasia in its more severe forms must render thought mixed and confused, and unless the affection be merely a light form of the aphasia of recollection, it is almost always accompanied by a pronounced diminution of the intelligence. We should not, however be satisfied with a generality like this, important as it may be ; but should, in studying individual cases, separate

the varieties of verbal amnesia and apraxia into classes, based upon a study of the relations of the symptoms presented to the sites and extensions of the lesions on which these symptoms are dependent. Those deep disturbances of speech and thought which are dependent upon large lesions destroying and disrupting various percept and concept centres, and the lines of communication between them, must so weaken and confuse the mental powers as to make sanity and responsibility in criminal, and competency in civil cases, often a matter of gravest doubt.

Many illustrations of forms of verbal amnesia and its most frequent associations have been recorded in the classical treatises on aphasia, and here and there in journals and text-books, but I will only refer to two or three.

Kussmaul cites Bergmann's case of a hind, 40 years old, who was unconscious for four weeks after a severe injury to the head, and then regained his recollection of things and places, but his memory for names was lost. The nouns had disappeared from his vocabulary, but he still had command of the verbs. A pair of scissors he called that with which one cuts; the window, that through which one sees, through which the room is illumined, etc. He had forgotten most of his songs and prayers. He recovered his memory subsequently.

The same author also gives the well-known case reported by Hun of Albany, that of a farrier who suffered from heart disease, and was seized one day with congestion of the brain, which threw him into a state of stupor lasting several days. He recovered consciousness and understood what was said to him, but although his tongue was freely movable he could not find words, and had to make himself understood by signs. He understood words that were said to him but

could not find those necessary to give expression to his thoughts. He could not repeat words that were pronounced before him. When the doctor pronounced the word which he sought he was much rejoiced, but his efforts to repeat it were fruitless. If Dr. Hun wrote it out for him he was able to spell it and could pronounce it after a few attempts. He made for himself a tablet on which the necessary words were written out, and took refuge in this during speaking. Finally he learned to do without it. When he was able to pronounce a word, he was also able to write it.

Bateman<sup>1</sup> records the case of a merchant who had been failing mentally for some time, and had had a "fainting fit," and soon afterwards began to get confused in conversation. He would let objects drop from his right hand, and do awkward things at the table—on one occasion he used vinegar instead of pepper. It was soon observed that he could not write a letter. During the doctor's lengthy interview with him, he never initiated any subject of conversation. When questioned, he got confused, and was conscious of this, saying he could not find words to describe his symptoms. The answers he made, however, were coherent, but in the fewest possible words. He seemed to understand everything that was said, but had to a certain extent lost the memory of words, and would call things by their wrong names—for instance, when the fire was burning particularly brightly he said, "How bright the poker looks." Some one said, "You mean the fire," "Yes," he said, "I mean the fire." He would be thus confused in the choice of words to express his thoughts, and the knowledge of this defect was a source of distress to him. The idea was conceived but the means of communication with the ex-

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<sup>1</sup> Bateman: *Aphasia, etc.*, p. 109.

ternal world did not exist. He complained of numbness in the right arm and leg, and the tactile power of the right hand was impaired.

An autopsy was had, and a cystic and softened area found, which is described as located at the point of union of the middle third with the posterior third of the convex surface of the left hemisphere.

Lichtheim reports in elaborate but important detail, a case of lesion of the paths between both the auditory and visual centres and the concept sphere with an interesting medico-legal experiment. Such a break should give us according to his analysis, loss of the understanding of spoken and written language, with the preservation of volitional speech, which would, however, be paraphasic, and of volitional writing which would be similarly paragraphic; also the retention of the faculty of repeating words, of reading aloud, of writing to dictation, and of copying words, with, however, a loss of intelligence for what is repeated, read aloud, or written to dictation. The case bears out fully this analysis. Verbal deafness was present, but little or no deficiency in the man's vocabulary, although he was in great difficulty when he had to name objects shown to him; he could repeat what was said to him without understanding; he understood nothing printed or hand-written; he could make up letters into words, and could read aloud by spelling, but the sense of the words remained closed to him. His other losses and preservations were in accordance with the analysis just given. This case and that of Hun, illustrated a point which must be always borne in mind when giving testimony, and one to which I have already referred, namely, that improvement in various ways both on the impressive and expressive sides often takes place in aphasic

cases. Word-deafness, paraphasia, paraphagia, and intelligent comprehension changed markedly for the better; but even after much improvement, writing to dictation remained obscure. Lichtheim dictated to him an I. O. U. for 20,000 francs, which the patient wrote down and allowed the doctor to put in his pocket without giving the least sign of emotion. In less than a month, however, when much greater improvement had taken place, the experiment with the due bill no longer succeeded.

Starr<sup>1</sup> has reported several interesting cases—one of paraphasia progressing to total aphasia, in which the patient was anxious to give directions about financial affairs and about his will, and although he knew what he wished it was impossible for others to learn his desires either by speech or writing. Another patient, a physician, would sometimes write the name of one drug in a prescription for another, and was also, likely to write the quantities wrong, so that he never failed to read his prescriptions several times. This shows another peculiar medico-legal phase which such a subject may have.

The discussion already had and illustrated by these cases makes it unnecessary to go in detail into each peculiar variety of conduction or commissural disorder of speech. The medico-legal bearings of alexia, dyslexia, paralexia, paraphagia, and paramimia, become evident in the general discussion of paraphasic disorders.

Commonly and correctly, mental integrity and competency, whether considered with reference to the deprivation of liberty, the care of an estate, the making of a contract, the preservation of testamentary capacity, or other questions which may arise in connection with aphasics, are

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<sup>1</sup> Starr: N. Y. Medical Record, October 27, 1888.

not regarded as affected by the existence of motor aphasia even when associated with considerable paralysis, and perhaps even with other forms of aphasia. I am, of course, now speaking of those forms of motor aphasia which are not part of or imposed upon insanity of definite type. Each such case should, however, be studied on its own merits, and the evidence pro and con<sup>e</sup> should be carefully sifted. Ray, Bastian, Ferrier, Hamilton, Hughes, Bateman, and many others, have expressed the opinion that aphasia from destruction of the motor speech centres does not of necessity mentally incapacitate the individual, and many cases have been recorded by these and other authors, to illustrate the retention of mental power by such patients. One of the general conclusions of Kussmaul is that "mental combinations which bear upon business affairs, and can only be set in operation by the aid of speech, are at times even admirably carried out notwithstanding the existence of a high degree of ataxic aphasia."

Even for motor aphasics, however, general conclusions are not sufficient. Such cases separate themselves into several classes according to the site and extent of the brain disease producing them. A sharp distinction must be made with reference to all aphasics, but particularly those in which the motor type predominates, between having mental power and being able to make known this possession to others; between the capacity to wish and will certain things, and the ability by speech, writing, or pantomime to show the desire and intention. In pure motor aphasia, due either to lesion of Broca's convolution, or the utterance centres at the base of the central convolutions or of both, the patient is usually able to make his wishes and purposes known. Usually such aphasia is associated with

agraphia, but expressive pantomime is likely to remain in some degree so that the patient can often communicate intelligibly with others. The impressive and concept spheres of language are not interfered with, and if any clear means of expression and communication remain, the capacity and competency of such a patient will be scarcely questioned. Cases which illustrate this standpoint are to be found in all articles and treatises on aphasia and need not be quoted. Even cases of pure motor aphasia, however, may be sometimes misunderstood, if care is not taken in communicating with them, as any defect in the mechanism of thought and expression, renders the human being, fallible even in health, liable to make mistakes and to be misapprehended.

Bastian,<sup>1</sup> in the following quotation, indicates an important matter—the bearing of the personal equation of the aphasic upon the question of mental impairment,—and he also in it tersely expresses the status of most cases of pure motor aphasia and agraphia:

“In pure agraphia thought is least of all interfered with. In pure aphasia it is more or less hampered, because the non-revival of glosso-kinaesthetic impressions seems to interfere somewhat with the free and thorough revival of words in other functionally related word centers, even during the processes of silent thought. Still in regard to both these forms of word revival, namely, of sensations accompanying the pronunciation and the writing of words, it should be borne in mind that for most persons no very definite recollection is possible, although unconscious memorial recall may occur with unfailing regularity, so as to lead to their proper sequences in the form of speech or writing. It is quite possible that the degree of impairment of thought in

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1 Bastian: *Brit. Med. Jour.*, Vol. II, 1887, p. 934.

different individuals suffering from pure aphasia may be subject to some variation in accordance with a varying relative importance (for such different individuals) of revived kinaesthetic impressions as compared with revived auditory and visual impressions. (Bernard, *De l'Aphasie*, p. 48.)"

Motor agraphia is usually associated with aphasia of the motor type, and, like the latter, is also variously combined with conduction or even conceptual and sensorial affections, and its importance will of course depend largely upon its combinations and complications.

Cases of either motor aphasia or agraphia, of pure type, and unassociated with paralysis, are rare. By far the most common association is motor aphasia, or motor aphasia and agraphia, combined with types of conduction aphasia, and well marked hemiplegia. These hemiplegic aphasics easily separate into three classes with reference to the presence and persistence of the aphasia: (1) Cases in which the aphasia, complete or nearly complete at first, in the course of days, weeks, or months, totally or almost totally disappears; (2) Cases in which the aphasia is nearly or quite absolute, and remains permanently; (3) Cases which improve slowly, and largely through a tedious process of training and re-education. The nervous wards of the Philadelphia Hospital almost always contain some cases of these different types.

Those cases of the first category, in which the hemiplegia persists although the aphasia passes away, are probably most frequently from lesions of the internal capsule, at a point well removed from the cortex, and compressing, or only partially destroying the fibres for the facial centres. The patients recover their speech because of the escape in large measure both of projection and commissural fibres. The mental integrity of patients of this class, after the apoplectic

period, is always retained, and is, as a rule, soon easy of determination. The ability to write and to express thought by pantomime is fully preserved on the non-paralyzed side, and to some extent when the paralysis is not absolute, the paralyzed limbs may be made to do service in expression.

In the second class of hemiplegic aphasics, in which the aphasia remains nearly or quite absolute and permanent, the determination of the mental status of the crippled individual is often a matter of great difficulty. I have seen autopsies on a number of these cases, as also on cases illustrating other varieties of aphasia. Generally the lesion is one of large size involving and destroying both internal and external capsules, and to a greater or less extent both striate bodies and the insula; in other words, one which according to our best lights, disrupts entirely the inter-nuncial tract for speech, and also largely the commissures, both direct and indirect, between the sensorial and motor centres, or between the latter and the centres for concepts. This lesion, moreover, is often so close to the cortex for speech as to destroy the commissures which would otherwise connect the left hemisphere with the right through the corpus callosum. Although motor aphasia and motor paralysis of face and limbs are prominent, the case is in reality one of badly mixed type, and presents phenomena at first sight as confusing to the investigator as the disturbances of thought and speech are to the suffering patient. It is in such a case particularly that a vast difference exists between the possession of thinking power, and the ability to communicate with others and make them appreciate this position. As a rule, writing and pantomime are lost in equal degrees with speech; but every means should be exhausted and every channel of communication tested,

before arriving at a decision, and even then such decision might be incorrect or unjust.

In the third class of cases, those which improve slowly and tediously, but nevertheless make great advances, the lesions, while large and similarly situated, have not been as extensive as those present in the second class. In the third class, also, the original capacity, the education, and the strength of mind of the aphasia may play an important part. The ability to exhibit capacity and competency will, of course, vary at different stages, as the patient progressively improves.

The certainty and uniformity with which an aphasic expresses even simple assent and dissent, by word or gesture, when questioned with reference to his wishes or with reference to facts, must be taken into full consideration. During the preparation of this paper, some cases of aphasia, which were certainly not word-deaf or only partially so, were carefully tested at the Philadelphia Hospital, with reference to their ability to certainly and consistently exhibit assent or dissent to questions relating to matters easy of comprehension. The results were variable and sometimes contradictory, puzzling, or amusing. One patient whose only vocabulary was the word "no," evidently used this word to express both assent and dissent, but accompanied its use with such an appearance of countenance, and such gesticulation as to make it impossible to decide as to her real intention. Sometimes she seemed to instantly and clearly comprehend what was asked, and showed this by her countenance, but oftener her look was one of annoyance, confusion, or impatience, rather than of either assent and dissent. Another patient seemed to understand most of what was said to her, particularly at first, but after a few queries she became

emotional, excited, confused, and decidedly impatient of investigation. A third, whose accompanying paralysis was less complete than that of the other two, but whose vocabulary was chiefly confined to the word "no," assented or dissented by means of facial expression, nodding her head and pantomime of fair correctness, and yet on continuing the examination frequently made foolish and absurd assents and dissents. A fourth patient possessed expressive gesture and pantomime in a much higher degree. She not only understood all that was said to her, but within the limits of her original capacity, education, and experience could so far as her unparalyzed members would permit, express her meaning clearly and distinctly by the most significant pantomime. With the instruments which nature had left unimpaired she could promptly indicate what she wished to convey, and yet she was tremendously crippled so far as ordinary speech was concerned, and had as a most common method of vocal reply a routine, recurring utterance "come-on-to-nong." Her pantomime had high propositional value. In studying her pantomimic powers, for instance, I asked her age, and with her unparalyzed left hand she opened and shut it fourteen times, the movement becoming a little slower and more emphatic as she approached the end. She told us in this that she was seventy years old, and when I said to her you mean you are seventy years old; she nodded her head "yes" in a most emphatic manner. I asked her how long she had been sick, and with her hand she promptly told me fifteen years. I said to her you mean twenty, she shook her head "no", and again opened and shut her hand three times to indicate fifteen.

The explanation of some of these cases is that although the receptive centres are sound, owing to the invasions of

the disease from the motor side of the brain, the association channels between the receptive and emissive centres are impaired or functionally inactive, and the patients seem to sink into a condition of language or speech fatuity from disuse, and carelessness as to speech. Even some patients who retain a considerable vocabulary and have only a moderate degree of paralysis, who clearly understand the import of questions put to them, and are clearly capable of certainly and consistently assenting and dissenting, show undue emotionality from trivial cause, and a weakness of grasp upon the ideas presented. Mixed aphasics, particularly if they have had little education or original brain capacity, who develop conditions of confusion, obstinacy, and impatience, probably do this in part as the result of the infrequent exercise of their mental powers through the vehicle of language.

Some knowledge of the most frequent methods of combination in the mixed aphasias will be of service in attempts at the solution of the medico-legal problems of speech. Brain lesions, usually vascular, are likely to extend over areas and tracts which are associated in functioning, and have, in accordance with a general law, a more or less common source of blood supply. Different varieties of psychical blindness and deafness, partial or complete, may occur together; motor aphasia, agraphia and amimia, partial or complete, are usually associated with paraphasias; and frequently partial word-deafness is found in conjunction with one or several of the varieties of motor defect in expression. Total sensory and motor aphasia is sometimes observed, and is of course accompanied by the completest form of speech, graphic and pantomimic disorder—complete aphasia, agraphia and amimia.

Close studies of these compound cases will doubtless enable us after a time to better separate them into different classes guided by localization facts and theories; to distinguish cases in which either the direct sensori-motor, or the concept-motor commissures, or both, or the hemispheric commissures, are damaged at the same time that the lesion attacks or not cortical centres and cortico-bulbar tracts. The path from concept to motor, or from auditory to motor centres, is certainly frequently broken and probably most frequently near the motor end of the line. Pure or almost pure cases of concept-motor aphasia have been reported in considerable number.

Disorder of speech, the result of damage to the so-called internuncial fibres or tracts between the cortical and bulbar centres, is of the nature of an *anarthria* or disturbance in articulation, rather than a genuine aphasia. This speech defect I have already described under the name of pseudo-bulbar or labio-gloso-pharyngeal paralysis of cerebral origin. The most marked examples of it are due to bilateral lesions or degenerations. Whether unilateral or bilateral, all cerebral centres and commissural channels are undisturbed; volitional speech, word repetition, and reading aloud are lost or greatly impaired simply because of interruption to speech impulses in the out-going roadways below the cortex. Mental capacity and competency need not be in the least diminished, as the patient preserves his receptive and conceptive faculties, and unless through great accompanying paralysis of face and limbs, large powers of communication by means of pantomime and writing.

It is necessary both for their positive and their negative importance, to briefly consider the various disorders of speech from infra-cerebral disease, such as, bulbar palsy,

insular sclerosis, and focal lesion between the cord and cortex, a large class of affections sometimes described under the general name of *anarthrias*.

In true *bulbar paralysis*, in which the changes in articulation are sometimes slight, and at others so complete as to almost abolish articulate speech, mental soundness, if the cases are uncomplicated, is not in any degree impaired, and various methods of expression and communication remain.

The method of progressive deterioration in the patient's speech, with the continued retention of mental integrity, is beautifully described by Kussmaul<sup>1</sup> in the following paragraph:

"As in the course of these degenerative changes one ganglion cell after another is slowly destroyed in the bulbar nuclei we perceive consonants and vowels successively crumbling away, as it were, from the patient's speech, while his intellectual powers may be perfectly retained. His words grow more and more indistinct and mutilated, his stammering passes into an unintelligible muttering, until at last he is only able to emit grunting noises, and perhaps not even these. So long as his hands and arms escape paralysis, he continues to communicate his feelings and ideas by writing. The disorder of speech is invariably limited (when there is no cerebral complication) to the power of forming articulate sounds; the stammering may pass into complete loss of speech but it is never associated with a blundering enunciation of syllables (*Sylbenstolpern*), or with aphasia. *The degree in which the formation of syllables and words is interfered with is always proportionate to the disorder of literal phonation*; the architecture, so to speak, of the words is not impaired; they continue to be correctly put

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<sup>1</sup> Kussmaul: *Op. cit.*, p. 654.

together, though the materials—the elementary sounds of which they are made up—may be inadequate.”

The various but allied forms of speech disturbance which result from insular sclerosis, and focal lesions of other sort in the intra-cerebral tracts, are not necessarily accompanied with any loss of mental strength or clearness, although, as is well known, mental changes are somewhat common in this affection because of its diffuse and destructive character. It is scarcely necessary to refer to the peculiar varieties of speech defect found in this well known disease, which have been well described under a variety of names such as drawling, syllabic, scanning, staccato, and hesitating.

The study of speech disturbances which are associated with the various forms of insanity, have of course great importance in connection with the particular topic of this paper, but would need an article of considerable length for their full discussion. I can scarcely more than refer to them.

As has been said by Dr. Hughes, and as even a careless study will show, aphasia dissociated from marked mental impairment is of more frequent occurrence than in association with evident insanity; so that in a case of suspected mental disease the burden of proof will fall on those who might maintain the co-existence of mental aberration, and the legal presumption would be in such a case in favor of sanity. While this is true it must not be lost sight of that aphasia is found among those who are clearly insane. Broca's first two cases were observed in an institution devoted to the treatment of mental disease, and not a few of the recorded cases have been observed in hospitals for the insane. Every physician in charge of an institution of this character, should carefully inquire into the history and symptomatology of cases showing special forms of speech

disturbance. The two cases referred to by Kussmaul will be remembered—patients suffering from aphasia, but not insane, and yet confined in an asylum.

Probably in paretic dementia, and senile dementia, the study of speech defects has more diagnostic and medico-legal value than in any other of the well recognized types of insanity. In the early stages of the former disease it may serve to make clear the true nature of the case; in the latter affection it may be of decisive importance in the determination of questions of competency. In mania, melancholia, paranoia, katatonia, idiocy and imbecility, the peculiarities of speech might have some bearings upon medico-legal problems in connection with the diagnosis of the nature, depth, or stage of the affection.

About the hallucinations and delusions among aphasics much of interest might be written. The hallucinations are usually of hearing and sight, and may in not a few cases be dependent upon irritation of sensory centres; while various delusional states may have their origin in disease both of sensory and concept centres, or in the disruption of various lines of communication between the different areas of the brain concerned with speech.

A consideration might be here in place of the inhibitory speech centres, or centres for abstract thinking, which I have included in the list of centres taking part in the phenomena of speech, but which are not usually so included. They are probably located in the prefrontal region. Hughlings Jackson,<sup>1</sup> Mercier, and others hold that anterior to the Rolandic motor region, are the highest motor centres, and that these with corresponding sensory centres, make up the highest level of the central nervous

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<sup>1</sup> Hughlings Jackson, M. D., New York, Med. Rec., August 31, 1889, Vol. xxxvi., . 227, 228.

system. Jackson contends that these higher centres represent all parts of the body; and Mercier that the highest nerve processes which form the substrata of the most elaborate mental operations, represent at the same time not only the most elaborate forms of conduct and muscular movements, but also every part of the organism in some degree. Accepting such doctrines, speech, like every other function of the body must, of course, be influenced by anything which affects these highest centres. Affections of speech, however, due to lesions of these pre-frontal areas are a part of the general mental impairment which goes with the destruction of this region; and the mental status of the individual will be recognized as much by other phenomena as by those of speech.

The following quotation from Hughes<sup>1</sup> may serve to cover some points with reference to the medico-legal aspects of affections of speech, not otherwise included in the present paper:

"The hysterical, the choreic, the cataleptic, the emotional, the hyperaemic, and reflex forms of speech failure have neither distinct clinical significance, nor are they often likely to have medico-legal importance, separate from the diseases with which they may be associated. They need not, therefore, be considered here, and we mention them mainly to exclude them, as we likewise do the speechlessness of nightmare. Marc and others, however, have noted the temporary impairment of the mental faculties in chorea, and the defect in the speech power in this disorder, is, probably, as much dependent upon the cerebral disorder implicating the speech centre along with other portions of the cortex, as on disturbance of the motor area for the organs of articulation.

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<sup>1</sup> Hughes: *Alienist and Neurologist*, July, 1880, Vol. I, No. 3, p. 315-316.

There are circumstances, too, under which aphasia occurring in the course of cerebral hyperaemia, might have corroborative significance in a question of doubtful sanity, but if we were to discuss all these possibilities, we might transcend the limit of the evening. We may say, however, in order to be understood as not underrating the matter, that such a degree of general cerebral congestion, if persistent for any length of time, as would paralyze the speech co-ordinating power, would probably also simultaneously impair the higher psychological faculties.

"The occasional aphasia of drunkenness has never been pathologically defined with sufficient distinctness. It is often, no doubt, a sort of incomplete and transient glosso-labial paralysis, like the other forms of inco-ordination seen in inebriates, or the peculiar and more permanent defects of speech displayed by general paralytics. This latter form of speech defect, also, need not be considered apart from the graver disease with which it is associated, and which has other characteristic signs. Nor need we note, any of the glosso-plegias causing speech defect."

"The momentary speechlessness, sometimes occurring in persons overcome by fright or profound surprise, at being the unwilling or unexpected witnesses of some horrible tragedy, might possibly have to be considered where an innocent person is indicted as *particeps criminis* from the fact of his being present, and uttering no protest or cry of alarm; but, in such cases, the proper explanation, I believe, has always been, and is still likely to be, made and received; so well understood is the fact, by the common mind, that intense fear may for a time, paralyze the power of speech, as well as of motion."

The disease known as *echolalia*, or *coprolalia*, and by various other names, might have some medico-legal

importance. This is an affection in which convulsive or choreic movements are associated with a sudden explosion of speech. The patient with a grimace, contortion, or violent movement of some kind, suddenly bursts into an obscene, profane, or absurd expression. This expression may be the echo of something overheard, hence the name, echolalia, or it may be a spontaneous outcry. It is conceivable, although I do not know that it has happened, that such a patient might be arrested for the use of obscene or insulting language in the presence of others, and physicians and jurists should therefore bear in mind that such a disease exists, and that the impulse to burst forth in this way is sometimes irresistible. It is not simply an hysterical affection, controllable and curable, but is a true monomania, the affection of speech being beyond the patient's volition. One patient of mine, a boy about twelve years of age, at times, without warning, would in a street car or other public place as well as in private, suddenly give utterance to a filthy expression two or three times, accompanying it with a violent movement of the head, shoulders, and one arm. Another patient, a lady of good education, and fine personal appearance, would in the midst of a conversation, or on introduction to another, or at any most inopportune time, suddenly, with violent gesticulation, shout, "Damn it!" "Damn it!" "Damn it!" Gilles de la Tourette, Dana, Seguin, and others, have reported numerous cases of this kind, and the affection certainly has a possible medico-legal aspect.

The association of aphasia with epilepsy, and the occurrence of what might be termed an epileptic or epileptiform aphasia without spasm, or without the usual type of convulsion with unconsciousness, is a phase of one subject which

has some important medico-legal bearings. Disturbances of speech in connection with epileptic attacks are, of course, very common, and may occur before or after, or even during a fit, when loss of consciousness is not profound. Sometimes a seizure is preceded, as is well known, by muttering or confusion of speech, by "thickness of tongue", by the utterance of certain expressions, by an unusual talkativeness, or by an absolute inability to talk. The aura of the attack may be aphasic in various ways. They are so well known and they have been so often studied and detailed, that it is not worth while to go in detail into the numerous perversions of speech and thought which so commonly follow epileptic attacks; they are simply the evidences of the exhaustion and disorder of the cerebral mechanism which has resulted from the terrible explosion of nervous energy which had occurred during the fit. In addition to these affections of speech, however, are others of rarer occurrence, and of special interest. In some of these the aphasia itself is the fit, just as we may have instead of the motor paroxysm, which is the usual epileptic manifestation, a substitutional attack of mania, of vertigo, of pain, of running, or of other automatism.

The nature of such cases of sudden loss or abrupt disturbance of speech is sometimes obscure and needs careful investigation. In the first place, the affection might be absolutely assumed or malingered, as, for instance, where it is part of a scheme for dissimulation of insanity, or to present a more serious picture in a litigation case; secondly, such loss or disturbance of speech might be neuro-mimetic or hysterical, but not absolutely simulated; and, thirdly, it might be the result of a genuine discharge of cortical or ganglionic areas of the cerebrum, or the result of a local cerebral ischæmia, and therefore properly to be classed as a epileptic phenomenon.

Many years ago I was sent for in haste to see a young woman, whose virtue was not equal to her appearance. She had suddenly become totally speechless, causing great consternation to her lover and the other residents of the house. No facial or limb paralysis could be made out and she had none of the usually associated phenomena of either an apoplectic or an epileptic attack. I learned that this abrupt loss of speech had come on after a quarrel with her lover, in which both he and she had exhibited violent rage, although no physical force had been used. In this case it was somewhat difficult to decide, but I concluded that the case was one of hysterical aphasia, the result of nervous excitement attendant upon the quarrel, and that the patient would soon recover, which she did as abruptly as she had been attacked. A form of mutism is, as is well known, quite common as a phase of hysteria, but the cases here referred to are those in which the loss of speech comes on as a sudden attack.

The presence or absence of speech disturbances with conscious epileptic automatism—which is perhaps a somewhat contradictory expression—may have some medico-legal importance. Stevens and Hughes<sup>1</sup> have reported such a case, and many more as similar are to be found in the books and journals. This patient, a physician, on several occasions got up in the night, dressed himself and went out of doors to look at his stock, or perhaps simply without any purpose. During part of the time at least he realized that he was doing something which he should not although conscious of what was occurring. He had had many real epileptic seizures preceding these attacks. He was put

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<sup>1</sup> Stevens and Hughes: *Alienist and Neurologist*, April, 1880.

under treatment and greatly improved, but on another occasion in a similar seizure he was asked a question which he understood perfectly but could not answer, although he continued to talk for about twenty minutes attempting to explain what he was trying to say. The night following this incident he had a severe epileptic attack. He afterwards could recall much of what he had said and done when in this confused, automatic state. The reporters of the case ask what would have been the result had some acts been done by this same patient during his apparently conscious somnambulism, something, for instance, involving him in a pecuniary obligation, as the signing of a deed, or the doing of any act making him liable to the law? Every neurologist of experience has seen similar cases.

In a discussion of the medico-legal aspects of aphasia, the *simulation of dumbness* by criminals or others should not be overlooked, as it is in fact a simulation of aphasia, or in some cases of both aphonia and aphasia. It may be resorted to by criminals feigning to be insane in order to escape the consequences of their crimes, or by prisoners to avoid duties or punishments. Ray<sup>1</sup> mentions the case of a man who had cut off his wife's head and had or assumed the demeanor of an imbecile. Among other manifestations he carried a piece of wood about with him which he represented by signs to be a sword. He would not speak or answer any questions except by now and then repeating the word "cabbage" without any meaning. Another French homicide, who was adjudicated insane, would not answer questions although he heard and understood them. Jean Gerard murdered a woman at Lyons, in 1829, and immediately after his arrest ceased to speak altogether, and appeared to be in a state of

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<sup>1</sup> Ray: Medical Jurisprudence of Insanity.

fatuity. The use of the actual cautery for several days brought him to terms, and after some urging he spoke declaring his innocence of the crime with which he was charged. A man convicted of pocket picking and sentenced to four years penal servitude, on hearing the sentence fell down in the dock in a fit of apoplexy, and when removed to the jail was found to be hemiplegic and apparently mindless, but whether he was aphasic is not mentioned. He subsequently effected his escape in a manner which made it clear he had been simulating. An Italian criminal apparently became insane soon after he had been betrayed by his accomplices, and to any question whatever, he merely uttered the words, "book, priest, crown, crucifix." Many other details are connected with this case, but it was finally decided that he was insane. It is not impossible that he may have been insane and also simulated some of his symptoms.

In suspected shamming of dumbness or of aphasia, the genuineness of the phenomena should be patiently tested from the standpoint that the defect of speech might be due to the mental state, that is, an aphasia or dysphasia, and also from the standpoint that it might be primary, that is, a true aphasia or dysphasia. As far as possible, the test for the determination of the presence of insanity or its simulation should be applied, resorting to surprises, strategy, and perhaps even in some cases to anæsthesia or to stern methods. The apparent aphasia or aphrasia should also be tested and studied as would any ordinary case of this affection in the same. Word-deafness, word-blindness, alexia, dyslexia, motor aphasia, and agraphia, should, if possible, be investigated and included or excluded; and the existence or non-existence of accompanying paralysis, anæsthesia, hemianopsia, etc., should be given full weight.

Let me say a few words in conclusion about the methods of examining patients suffering from aphasia and other affections of speech, for medico-legal, or indeed for any practical purpose. Such an examination to be of real value should be carried out systematically and should be of the most thorough character. Reports of trials in which aphasia has been the issue, or of papers based upon a study of medico-legal cases of this kind, show how meagre, uncertain and unsystematic, have often been the investigations of patients whose mental state has been the issue upon which has hung the disposal of large fortunes.

Starr<sup>1</sup>, who has written various important papers on aphasia, in one of them makes the following practical suggestions with reference to these examinations:

“To examine an aphasic thoroughly, it is necessary to test:

1. The power to recall the spoken or written names of objects seen, heard, handled, tasted, or smelt.
2. The power to understand speech and musical tones.
3. The power to understand printed or written words.
4. The power to speak voluntarily. Does he talk clearly? Does he mispronounce words? Does he misplace words? Does he talk jargon?
5. The power to repeat a word after another.
6. The power to read aloud. Does he understand what he reads?
7. The power to write voluntarily. Can he read what he has written?
8. The power to write at dictation.
9. The power to copy.
10. The power to recognize the use of objects seen, heard, felt, tasted, or smelt.”

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1 Starr: Apraxia and Aphasia. Med. Rec., New York, October 27, 1888.

The investigator should constantly keep before his mind that he is to determine not only what the patient has lost, but what he retains of language and of thought.

"The comparative study of nervous diseases," says Jackson<sup>1</sup>, "the study of them as dissolutions—is a process of generalization. To attempt this generalization without prior careful analysis of the things concerned, needing minute clinical study of individual cases, is not likely to lead to anything of permanent value. To compare and contrast the mere local lesions and the symptoms directly dependent on them only is not good method. It is one merit of the method I am urging that it deals not only with the local lesion—with that, I mean, which disease (in the strict sense of pathological change) causes—which alone is dissolution, but also with the healthy rest; that is, it takes into account the evolution going on in the undamaged remainder of the nervous system. The full symptomatology of a case of ocular paralysis is not to be intelligently stated even unless activities of healthy centres, including the highest (all centres above the peripheral lesion) are considered; and a case of insanity is not properly analyzed unless undiseased parts of the highest centres and all lower centres are considered."

Lichtheim, in the admirable paper so often referred to by me, gives a series of synopses in connection with his schema of types of aphasia. Such synopses, showing at a glance, what is lost and what is left of speech and thought, are of great value for the purposes of methodical examination.

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<sup>1</sup> Hughlings Jackson, M. D., New York, Medical Record, August 3 1889, Vol. XXXVI., p. 226.

## TRANSLATORS.

## ITALIAN.

H. M. BANNISTER, M. D., Asst. Physician Eastern Illinois  
Hospital for Insane, Kankakee.

## GERMAN.

G. J. KAUMHEIMER, M. D., Milwaukee.

CLEMENT VENN, M. D., Chicago.

H. M. BANNISTER, M. D., Kankakee.

JOS. KAHN, M. D., Milwaukee.

## RUSSIAN AND DUTCH.

F. H. PRITCHARD, M. D., Norwalk, Ohio.

## FRENCH.

J. G. KIERNAN, M. D., Chicago.

## SPANISH.

HORACE M. BROWN, M. D., Milwaukee.

## SWEDISH, DANISH AND NORWEGIAN.

M. NELSON VOLDING, M. D., Asst. Physician State Hospital  
for Insane, Independence, Iowa.

F. H. PRITCHARD, M. D., Norwalk, Ohio.

## NEUROLOGICAL.

## ANATOMY AND PHYSIOLOGY.

THE ORIGIN AND THE COURSE OF THE FIBERS OF THE CEREBELLAR PEDUNCLES. V. Marchi, *Rivista Sperimentale* XVII, fasc. III, page 357, concludes a memoir giving the results of extirpation experiments with the following conclusions: (1) The superior cerebellar peduncles do not completely decussate, but a small bundle of fibers passes directly to the same side as that of the hemi-extirpated cerebellum to terminate in the thalamus of the corresponding cerebral hemisphere, while the principal bundle terminates in the red nucleus of Stilling of the opposite side. These peduncles do not send fibers either to the optic tracts or to the fillet of Reil, as has been heretofore supposed. (2) The middle cerebellar peduncles do not represent simply the commissural fibers that put the two cerebellar hemispheres in relation to each other. The fibers that form them first pass to the median sulcus of the annular protuberance and then penetrate the pyramidal bundles where they intersect and put themselves in relation with the gray matter of the pons of the same side. Other fibers of these peduncles in small quantity pass in front of the pyramids and enter the gray substance of the pons of the opposite side. (3) The inferior cerebellar peduncle sends a bundle of fibers to the olive of the opposite side forming the arciform fibers and the direct cerebellum bundle of Flechsig. This is formed, in all probability, of both afferent and efferent fibers. The efferent ones will be those that degenerate after a lesion of the cerebellum, at least in dogs and apes. (4) The posterior longitudinal bundle and the fillet of Reil have a common origin in the cerebellum, more especially in the middle lobe. They pass with the middle cerebellar peduncles and are in relation with, first, the nuclei of the cranial nerves, and secondly, with the gray substance of the pons, with the bigeminal eminences and probably with the corpus striatum, by a bundle of fibers that passes upwards together with the pyramidal fibers. Finally, in correspondence with the olive, the longitudinal bundle unites with the fillet and together they enter into the antero-lateral columns,

in which they stand, in all probability, in relation with the anterior horns of the spinal cord, since in lesions of these fibers we find degeneration of the anterior roots of the cord. (5) The hypothesis of certain anatomists, that the cranial nerves are in relation with the cerebellum, is supported, but this connection is brought about by means of the posterior longitudinal bundle and the fillet of Reil. (6) The origin of the three cerebellar peduncles is diffused throughout the whole cerebellar cortex, with the difference only that the nucleus dentatus furnishes the greater number of fibers to the superior, and the vermis to the middle peduncles.

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H. M. BANNISTER.

THE FUNCTIONS OF THE CEREBELLUM. The following are the conclusions of an article by Borgherini and Gallerani. *Rivista Sperimentale* XVII, fasc. III, 1891. The cerebellum is an organ essential to the co-ordination of voluntary movements. Any lesion profoundly affecting it produces the same kind of symptoms as in locomotor ataxia. The gradual, more or less complete disappearance of the experimental syndrome is due to the non-involvement of a greater or less mass of the organ. But in order that this uninvolved portion should have this effect it is necessary that the relations which normally exist between the different parts of the cerebellum should be preserved. A superficial lesion of the organ, which in experiments falls of necessity on its posterior and superior aspect, gives as a constant and permanent result a tremor of the head and neck. Complete destruction of the cerebellum causes permanent ataxia of all voluntary movements, among which is prominent the disorder involving the head and neck. The head and neck are the parts which first indicate the least degree of injured function of the cerebellum and that manifest the greatest effect from the slightest lesions, owing to the inherent laws of the condition of their own static equilibrium. By means of the organs of sight and the intelligence combined the animal is able to correct, to some extent, its defects of motion, since by attention it is able to avoid some movements and proceed with others with caution. It uses its intelligence with the faculty of sight more intensely than under normal conditions. The lack of sight causes the animal to abstain from any voluntary movement. In the same way may be explained the fact of the permanent abnormal positions of the members. Injury to the cerebellum

causes trophic disturbances, but is not accompanied with any modification of the muscular force nor any alterations of the special or general sensibility. The character of the ataxia from cerebellar lesions is similar to that of spinal ataxia in man.

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H. M. BANNISTER.

CEREBRAL LOCALIZATIONS. A. Brunati, *Archivio Italiano* XXVII, fasc. 3 and 4, 1891, reports a case which is of interest in a certain point of view. The subject was a young man twenty-one years of age, who had had, when three or four years old, a fall, injuring the parietal region of the left side, and for five years he had been considered insane though previously he had been of weak mind and neurotic disposition. He was of small size and unsymmetrical and deformed in the lower limbs. There was no paralysis nor sensory disturbance and there had been no convulsions. The patient died of ileo-typhus and the section showed adhesions of the scalp to the skull at the point of injury, also of the dura to the calvarium and to the cortex below, and an old lesion involving the two ascending convolutions of the left side with extensive destruction of the gray matter of the cortex, also involving the frontal and parietal convolutions. Another case is reported in the same number of the *Archivio Italiano* by Dr. G. Antonini which has a similar interest in some respects. The patient had suffered with convulsive attacks which had left him with paralysis of the right arm and facial and lingual hemiparesis of the right side with amnesic aphasia. The autopsy revealed diffuse general endo-arteritis obliterans, atrophy of the convolutions of the insula with softening of the same, which also involved the first and second temporal convolution and extended inward deeply in the centrum ovale to the lenticular nucleus and the external capsule. Posterially it reached the external occipital convolution. On the external surface of the brain the softening was apparent at the foot of the third frontal, the two ascending and the posterior portion of the inferior parietal convolutions. The membranes were adherent in various portions of the cortex. The most interest here attaches, it seems to us, to the absence of sensory aphasia depending on the lesions of the temporal convolutions, which absence is not to be explained by any exceptional functioning of the corresponding parts of the intact right hemisphere as the patient was not left-handed. There was apparently no evidence of verbal deafness.

H. M. BANNISTER.

IS PAIN EVER OF CENTRAL ORIGIN? Edinger reports a case which is of interest because it presents a typical example of pain due to lesion of the central nervous system. This subject has not received much attention in medical literature and the cases are so rare that Möbius denies the possibility of their existence. A woman aged 48 had endocarditis in 1883. In November 1886 she had an apoplectic attack. There was loss of sensation in the right arm and leg, followed by unconsciousness lasting but a short time. Upon regaining consciousness the right side was paralyzed, hyperæsthetic and the seat of intense pain. The paralysis improved, but the pain and hyperæsthesia remained unchanged. Seven to eight months later athetoid movements were noticed in the arm and a tendency to contractures showed itself. Two years later right hemianopsia was discovered. The pains became so intense that in 1888 she committed suicide. The autopsy showed an area of softening in the left hemisphere involving the external nucleus of the thalamus opticus, the pulvinar and a small portion of the internal capsule immediately adjoining. The degeneration in the internal capsule did not directly involve the sensory fibres, but was in their immediate neighborhood. The author believes that the prominent symptoms were due to the effect of softened area upon the sensory fibres, although we should expect this to produce anæsthesia rather than hyperæsthesia. The early appearance of the pain and hyperæsthesia excludes the possibility that these symptoms may have been due to secondary changes in the peripheral nerve endings which sometimes occur in cerebral hemorrhage or embolism.—(*Deutsche Zeitschrift für Nervenheilkunde*, July, 1891.)

JOS. KAHN.

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THE EFFECT OF PSYCHICAL INFLUENCES UPON THE TENDON REFLEXES.—Longard finds that the state of mind of a person may exercise an influence over the condition of the tendon reflexes. Under intense mental excitement the reflexes may be greatly increased, in fact so much so that until recently it would have been but natural to suspect an organic lesion of the cord. The knowledge of this curious phenomenon may frequently prove of much practical value. The presence of exaggerated knee jerk or ankle clonus will not be sufficient to indicate degeneration of the lateral tracts of the spinal cord, while abnormally increased reflexes

may be present in malingerers who, fearing discovery, are in a state of excitement while under examination.—(*Deutsche Zeitschrift für Nervenheilkunde*, July, 1891.)

JOS. KAHN.

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## PATHOLOGY AND SYMPTOMATOLOGY.

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INTRA-CRANIAL SYPHILIS.—Dr. Landon Carter Gray read an article upon the diagnosis of a certain form of intra-cranial syphilis before the American Neurological Association, Sept. 24th, notice of which is given in the Medical Record of October 3d. He gave the histories of a number of cases in support of his views. These symptoms were a cephalalgia, quasi-periodical, recurring generally at night, and occasionally in the afternoon or in the morning, with marked insomnia, this cephalalgia and insomnia ceasing suddenly upon the supervention of any paralytic symptoms. Dr. Gray also calls attention to the fact that hemiplegia occurring in an individual under middle age should render us very suspicious of a syphilitic causation. This peculiar headache and insomnia belonged to the early stage of intra-cranial syphilis, although it might occur in the primary, secondary or tertiary state of the general syphilitic infection. Dr. Mills said that the occurrence of paralysis after the subsidence of headache and insomnia was an unimportant feature in the diagnosis or treatment of syphilis. These symptoms occurred in consequence of degenerative changes.

B. M. CAPLES.

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CHANGES IN THE BRAIN IN A CASE OF CHOREA.—F. Weleminsky reports finding in a case of chorea, ending fatally within five weeks, numerous minute foci of softening scattered through the cortex—especially of the frontal lobes. The cerebellum, pons, medulla and cord were normal. Microscopic examination showed fatty degeneration to be the cause of the softening. Besides this an interesting anomaly of the circle of Willis was noted. The basilar artery showed in the middle of its course a cicatricial stricture, admitting only a probe, situated between two dilatations. The deep cerebral arteries were very small,

while the posterior communicating arteries were very large. The left art. corp. callosi was very narrow and seemed to arise from the right one, as the anterior communicating artery was very short and wide.—(*Prog. Med. Wochensch.*, No. 38, 1891.)

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G. J. KAUMHEIMER.

PERIPHERAL NEURITIS IN RECENT SYPHILIS.—Dr. Ehrmann reports two cases, and from a consideration of all published cases furnishes this list of symptoms: Swelling of the nerves and tenderness on pressure, with atrophy of the supplied muscles, and reduction of strength but no paralysis. Reduced galvanic and normal faradic irritability, no R. D. Paræsthesias of the sensory nerves, with hyperalgesia and later anæsthesia. Signs of involvement of the nervous plexus, but intact reflexes. This trouble can be distinguished from poliomyelitis by the involvement of both sensory and motor nerves, the absence of paralysis, and its erratic distribution.—(*Wien. Med. Blätter*, No. 40, 1891.)

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G. J. KAUMHEIMER.

TRAUMATIC PORENCEPHALY.—The patient was 11 months old when he came under observation. He then showed a swelling over the right parietal bone which had developed 5 weeks before. Three exploratory punctures showed a bloody serum. The swelling showed distinct pulsation, and measured 9.5 by 7.8 cm. A distinct fissure in the bone could be felt. A diagnosis of meningocele spuria traumatica was made. Somnolence developed and operation determined on. A sagittal incision discharged a quantity of yellow serum. A fusiform fissure 10 cm. long and 1 cm. wide at its widest part was found running from above and behind, downward and forward. Two holes as large as peas were found in the dura. There was a very free discharge of serum and the wound was five months in healing. At this time it was seen that the fissure in the bone had enlarged, an oval space 3 by 2.5 cm. being present with everted edges. The soft parts covering this were bulging. Slight spasm of the left angle of mouth and left eyelid occurred frequently. Death from pneumonia 8 months after operation. Autopsy showed a fissure in the brain corresponding to the fissure in the bone. The posterior cornu of the lateral ventricle extended to the dura in this locality.—(*Prof. Weinlechner and Dr. Kolisko, Prog. Med. Wochensch.*, No. 33, 1891.)

G. J. KAUMHEIMER.

A CASE OF GLIOMA CEREBELLI.—J. P., a girl aet. 7½ years, was brought to the hospital complaining of severe headache in the right frontal region. Besides this there was inability to walk for any length of time. The parents stated that she was becoming more apathetic every day. The pupils were dilated and almost motionless, the right being constantly larger. Vision was good. Examination showed papillary swelling of over 3 D. Slight paresis of the right side of face was found. Knee reflex enormously, achilles reflex moderately exaggerated, foot clonus being present. All these symptoms were somewhat more decided on the right side. Vomiting had been present. The apathy deepened daily although the mind was clear. On the seventh day patient developed variola from which she died on the fourteenth day after admission. Autopsy showed a tumor as large as an egg in the left cerebellar hemisphere. This was a fibrous glioma with spots of myomatous degeneration. Cerebellar tumors in children are rare, only seven authors reporting them.—(*Dr. Jos. Sobotka, Prog. Med. Wochensch., No. 30, 1891.*)

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G. J. KAUMHEIMER.

PRIMARY CARCINOMA OF THE FLOOR OF THE FOURTH VENTRICLE.—Dr. V. Wunschheim has been able to find only 2 undoubted cases of primary carcinoma of the brain in literature, one reported by Ziegler, the other by Cornit and Ranvier. All others must be objected to, usually because microscopic examination was not made. One patient, at the age of 51, complained that for 6 months previously he had suffered from occipital pain, pain in the chest, and frequent nausea with occasional vomiting. Latterly he had also noticed increasing weakness of all the limbs. On admission, no abnormality of innervation could be found in the area of the cranial nerves. Deglutition and speech had always been difficult on account of cleft palate. Motor strength of extremities was much reduced but no disturbances of sensation or ataxia could be demonstrated. Patellar reflexes were lively—the gait tripping and sometimes swaying. Later, ankle clonus, vomiting, and pain in the calves and neck were found. Micturition became difficult, and violent and prolonged hiccough occurred for weeks before death. On autopsy some slight dilatation of the ventricles and flattening of the convolutions were found. The superior portion of the vermis of the cerebellum projected more than

normally. On making a median section a tumor the size of a walnut was found filling the fourth ventricle and rising from its floor. It was not adherent to the walls of the ventricle. The tumor showed on its surface a papillary, and in its interior an areolar structure, its cells being cylindrical. The tumor had evidently been derived from the ependyma and choroid plexus of the ventricle. There were no metastases.—(*Prog. Med. Wochensch.*, No. 29, 1891.)

G. J. KAUMHEIMER.

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THE SEQUELÆ OF CEREBRAL CONCUSSION.—Only a single case of severe sequelæ following cerebral concussion has been submitted to autopsy and searching microscopical examination. Dr. M. Friedman reports two further cases. Case *I* is that of a man aged 27, who was injured about the head. On account of resulting headache and vertigo he was put to bed for a fortnight. On arising he was found to present a staggering gait, paralysis of the facial, of internal branch of oculomotor and of abducens nerves, as well as deafness on the right side. These remained constant with the exception of the facial paralysis which improved somewhat. After a period of comparative comfort the symptoms suddenly became worse with intense headache, general weakness, spastic paralysis of all the extremities and a temperature of 39° C. These symptoms persisted with more or less fluctuation until death under coma, delirium and jactitation eleven months after injury. Autopsy showed nothing abnormal either in skull or contents, especially no trace of fracture. Case *II*, that of a nurse, aet. 30, showed similar symptoms. Three years after injury trephining was done over a tender spot on the left occiput. The immediate result was brilliant but the coma returned and patient died five days after operation. Autopsy showed the gross appearance of the brain to be absolutely normal. Microscopical examination of both brains showed that the brain tissue and larger vessels were normal, only the smaller vessels being diseased, about one-fourth of them being abnormal. These changes presented four different forms. The most frequent was an intense engorgement of the capillaries with blood. Secondly, a number of these showed dilatations, often to an extreme degree. In the third variety the adventitial sheath participated in the dilatation, being often filled with pigment, and occasionally with round

cells. The least frequent change was a hyaline degeneration of the vessel wall. The nerve nuclei showed no changes which could not be found in other parts. Micro solid organisms could not be demonstrated by staining. This result agrees with that of Pierson and Sperling. Clinically these cases are of importance as showing that symptoms heretofore attributed to fracture of the base or other gross lesions may be due to a disturbance mainly functional. The author distinguishes three types of sequelæ after cerebral concussion, the vasomotor, of which the cases related are examples, the hysteriform and neurasthenic type, and the primary psychical disturbance.—(*Dr. M. Friedman, Deutsche Med. Wochenschr.*, No. 39, 1891.)

G. J. KAUMHEIMER.

LESIONS OF THE SUPERIOR TEMPORAL CONVOLUTIONS ACCURATELY LOCATING THE AUDITORY CENTRE.—Dr. Chas. K. Mills reports an interesting case in the University Medical Magazine for November. He says although the localization of the auditory centre or sphere in the first or in the two upper temporal convolutions is generally admitted, this view has not received universal acceptance; therefore the great value of the history and autopsy here recorded will be acknowledged. Nearly all the recent views with reference to auditory localization agree in placing the auditory centre, or centres, in the temporal lobe, but differ as to their exact position in this lobe, or as to the extent of cortex included in the auditory field. The present case should be ranked as conclusive in the decision of the question of auditory localization, the specimens showing an isolated lesion in the two upper temporal gyri of the left hemisphere, which caused word-deafness, and also a later lesion of the two superior temporals of the other hemisphere with a history of almost total deafness. He has recorded the case of a man, deaf for thirty years, whose brain showed marked atrophy of both superior temporal convolutions, particularly the left side. Numerous cases of lesions of the superior temporal gyrus of one side have been reported, and word-deafness has most frequently been found an accompaniment of lesion of the left first temporal convolution. These facts are now well known and have been put on record by various observers as Seppilli, Ferrier, Starr and others. The case Dr. Mills reports was a woman aged 46. Admitted to the Philadelphia Hospital, August, 1891. Had

a history of scarlet fever in childhood, of rheumatism many years ago, and also of old venereal disease. Fifteen years before her death she had an apoplectic attack which left her word-deaf but not paralyzed. Prior to this attack her hearing had been good, but after it she could not, by hearing, understand anything that was said to her. She could hear such sounds as a bell ringing and a clock ticking. She had fully preserved her vision and was evidently not word-blind either for writing or printing. From the description given of her manner of speech the defect was evidently a serious form of paraphasia and paralexia. The apoplectic attack had not in any way, as far as could be ascertained, affected either motion or sensation. She could write, but "sometimes mixed up her words in writing." Nine years before her death she had another and more severe apoplexy after which her deafness increased for sounds, as well as words, until it was almost total. Upon examination, Aug. 24th, it was impossible to make her understand what was said to her, and, as far as could be determined by repeated tests, she was totally deaf. Died, Aug. 28th. Autopsy.—The first temporal convolution was much smaller and thinner than usual, and at the posterior extremity of it and of the second temporal was a depression covering a space about seven-eighths of an inch in diameter. The left first temporal convolution was remarkably small, narrow, and smooth except at its anterior extremity. Its posterior two-thirds or three-fourths were shrunken to a thin strip. At a point about the middle of the gyrus the convolution has so disappeared as to leave only a notch and shred of tissue. Just anterior to this point a small annectant gyrus runs to the second temporal. The attenuated appearance of this superior temporal convolution is such as to attract the attention of the most inexperienced observer. At a point corresponding to the posterior fourth of the second temporal convolution and the parallel fissure the brain presented a marked depression, or cavity, at the bottom of which, when the specimen was in a fresh state, was a small mass of yellow, shrivelled, puckered tissue. This was evidently the remains of an old embolic softening. The subarachnoid cavity, or cyst, which was present before the inner membranes were removed, was formed by this old necrosed area and the widened parallel fissure, this widening having chiefly resulted from the atrophing of the first temporal convolution. Backward from the position of the annectant convolution

the second temporal convolution was decidedly atrophied, and in its posterior fourth, or perhaps third, had practically disappeared, and was replaced by the cavity or cyst just described. The third, fourth and fifth temporal convolutions were not involved in either the softening or atrophy. Around the ascending branch of the Sylvian fissure and at the bases of the two central convolutions atrophy had evidently taken place. This ascending branch of the Sylvian, instead of being a mere indentation, or narrow fissure as is usually the case, was wide and gaping. The hinder portion of the third frontal, and particularly the strip of convolution between the ascending Sylvian and precentral fissure, was markedly wasted. The retro-insular convolutions were two in number, and the posterior of the two was very small. The anterior retro-insular presented an appearance of being a continuation of the anterior half of the first temporal. The posterior retro-insular was continuous with the posterior much-shrunk half of the first temporal. In the right hemisphere was an old and very extensive hemorrhagic cyst, which had completely destroyed the first, and almost completely the second temporal gyrus, the island of Reil, the retro-insular gyri, the lower extremities of the central gyri, and a large extent of the ganglia and capsules. Examination from within showed that the caudate body and the thalamus had largely preserved their integrity and the chief interior destruction was probably of the lenticular ganglion and the external capsule. In the posterior portion of the cystic area some gyral substance was seen, but examination showed that to be the shrunk lower extremity of the inferior parietal convolution. As on the other side, the supra-Sylvian bordering convolutions were much atrophied. The auditory nerves were atrophied. The acoustic striæ, usually so easily seen, and often so prominent, could not be made out with the naked eye. A study of this case justifies the following conclusions: (1) The centre for word-hearing is situated in the hinder thirds of the first and second temporal convolutions; its exact position is in a line with, or just in front of, the posterior extremity of the horizontal branch of the fissure of Sylvius. Possibly it is restricted to the second temporal convolution. (2) The third, fourth and fifth temporal convolutions take no part in cerebral audition. (3) A lesion confined to the posterior thirds of the first and second temporal convolutions of the left hemisphere will produce complete, or almost complete, word-deafness, the

corresponding regions of the other hemisphere remaining intact. (4) The field or sphere for all auditory memories covers a much larger cortical area than that for word-hearing, including at least the posterior two-thirds of the first and second temporal convolutions. (5) The auditory field and special auditory centres have their highest development in the left hemisphere, but destruction of the auditory areas of the two upper temporal convolutions of both hemispheres is necessary to complete word-deafness. (6) A lesion limited to the centre for word-hearing and causing word-deafness will cause also paraphasia in attempts at speaking, and paralexia in attempts at reading. (7) An isolated lesion of the centre for word-hearing producing absolute, or nearly absolute word-deafness, does not necessarily cause inability to recall words by other means, as, for instance, through their visual signs; in such cases probably the meaning of the word is understood, although the name cannot be properly verified in consciousness. (8) A cerebral lesion, or lesions, causing word-deafness will, in time, lead to secondary atrophy of the speech and oro-lingual centres on the motor or emissive side of the brain, and also to atrophy of the association tracts between the sensory and motor-hearing speech centres. (9) The retro-insular convolutions are anatomically and functionally closely related with subdivisions of the first temporal convolution, the most posterior of these retro-insular convolutions being continuous with the posterior half or two-thirds of the first temporal convolution.

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B. M. CAPLES.

TUMOR OF THE BASE OF THE BRAIN.—M. W., of Schulten, reports the following symptoms in a case of tumor of the base of the cerebrum:—Upon the left side of the face there was complete paralysis of the trigeminus, of its sensory as well as of its motor fibres, of the abducens and oculomotorious nerves. There was distinct atrophy of those parts supplied by the trigeminus, which was especially pronounced in the left half of the tongue. Swollen lymphatic glands were found at the angle of the left lower jaw. A diagnosis of malignant tumor of the base of the brain was made and confirmed at the necropsy.—(*Finska Läkarsällskapets Handlingar*, bd. 31, sid. 442.

FRANK H. PRITCHARD.

**TUMOR OF THE MID-BRAIN AND LEFT OPTIC THALAMUS.**—Dr. James H. Lloyd, of Philadelphia, reported the above case to the American Neurological Association September 24th, and exhibited the specimen from a patient 28 years of age, who had been admitted to the Philadelphia hospital. There was a crossed paralysis, the left third nerve being involved, with right brachial monoplegia and right crural monoparesis. The face and tongue were not paralyzed on either side. No paralysis of any other cranial nerve. Death took place on the twentieth day after admission. The autopsy revealed a tumor of the left optic thalamus and the mid-brain involving the left cerebral peduncle. On microscopical investigation this was found to be a glioma. A diagnosis of tumor of the left cerebral peduncle had been made at the first examination.—(*Medical Record*, Oct. 3, 1891.)

B. M. CAPLES.

**TUMOR OF CORPUS CALLUSUM.**—Dr. Redtenbacher reports a case in which the chief symptom was apathy, deepening into somnolence, slight left facial paralysis, afterward changing to right side, headache and exaggerated reflexes. Death in coma. The frontal lobes had united over the corpus callosum, which contained in its anterior part a tumor 5 to 6 cm. in transverse diameter. This consisted of a mass partly reddish-brown, partly yellow, very friable and containing numerous hemorrhages, which was surrounded by a zone of hemorrhagic degeneration. The case is of interest mainly as showing that a tumor of quite large size may occur without severe or focal symptoms.—(*Wien. Med. Blætt.*, No. 31, 1892.)

G. J. KAUMHEIMER.

**EMBOLISM OF THE BASILAR ARTERY FOLLOWING ULCERATIVE ENDOCARDITIS.**—Dr. Goldscheider relates a case of this disease in which almost the only symptom of cerebral trouble was somnolence, deepening into coma, and ending fatally in twenty hours. The only other cerebral symptom was a contraction of the left pupil. Autopsy showed an embolus in the basilar artery where it divides into the deep cerebral arteries. As these vessels supply the ventricular gray matter the analogy to acute polioencephalitis, in which somnolence is also a prominent symptom, is obvious. From these cases Mauthner has based his theory of sleep, which is, that sleep is due to a disturbance of connection between the cortex and periphery occurring in the central gray matter.—(*Deutsche Med. Wochensch.*, No. 30, 1891.)

G. J. KAUMHEIMER.

**POLIOENCEPHALITIS ACUTA SUPERIOR.**—This disease has as yet been rarely observed. It consists of an inflammation of the central gray matter. If in the third ventricle, aqueduct, or anterior part of the fourth ventricle, it receives the affix superior; if in the posterior part of the fourth ventricle, posterior. Wernicke was the first to furnish an accurate description of this disease, to name it, and to diagnose it intra-vitam, although Gayet had described it before him. The characteristic symptoms are an overpowering somnolence and progressive paralysis of the ocular nerves—with intact mind if consciousness be preserved. It ends fatally and without fever in 8 to 14 days. The pathological anatomy of the trouble consists in numerous punctiform and miliary hemorrhages into the gray floor of the ventricles. Alcoholism, syphilis, traumatism, and various toxic agents have been found as causes. The disease described some time ago as nona seems to be related to it, as well as Gerlier's disease (vertige paralyssant) observed in Switzerland, and a disease observed in the tropics and described under the name of nelavan. Dr. Salomonsohn reports a case observed in Berlin, the first symptom being somnolence, the ophthalmoplegia being secondary, and ending in recovery—being the first so reported. The therapeutic measures employed were inunctions of mercurial ointment and the internal use of potassium iodide, although there were no signs of syphilis.—*Dr. H. Salomonsohn; Deutsche Medic. Wochensh., No. 27, 1891.*

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G. J. KAUMHEIMER.

**PACHYMEINGITIS HEMORRHAGICA INTERNA.**—Male, æt. 37, who had suffered a year before admission from cephalalgia and difficulty in moving the tongue, entered the hospital complaining of headache and paresis of left arm and tongue. The lower jaw projected somewhat and was firmly pressed against the upper, although a separation admitting of plain speech was possible. A paresis of the left arm with rigidity and slight facial paralysis on the left side were found. Difficulty of swallowing existed. The trismus soon became complete accompanied by an intense rigidity of both upper extremities and the spine. There was conjugate deviation of the eyes to the right. When he attempted to turn the eyes to the left a marked nystagmic tremor developed as soon as they reached the median position, which they did not cross. The next day uncon-

sciousness set in and the rigidity and trismus increased. Patellar reflexes exaggerated, with left-sided patellar and ankle clonus. Triceps reflex, and all bone and muscle reflexes very lively in both arms. Cremaster and abdominal reflexes abolished. Attempts at straightening the flexed arms caused tetanic spasm with opisthotonos. Three days after admission (seven from first complaint) the patient presented spasms of the entire body with deep coma and gradual resolution of the rigidity and disappearance of the patellar and foot clonus, but with lively knee jerk. Pupils reacted until shortly before death which occurred on the eighth day. Temperature normal until shortly before death. The early coma excluded tetanus: the lack of initial irritation symptoms negatived meningitis. The paresis of the arm pointed to a surface lesion, which was obviously a hemorrhage. Rigidity occurs in cerebral hemorrhage in two conditions: 1, in ventricular hemorrhage, and 2, in extensive surface hemorrhage. Paralyses due to lesions of the basal ganglia are generally flaccid. The long duration of the symptoms decided the diagnosis against ventricular hemorrhage, which is generally fatal within 36 hours. Autopsy showed that the right side of the dura contained 200 c.c. ( $6\frac{1}{2}$  oz.) of fluid blood, the left 140 c.c. ( $4\frac{1}{2}$  oz.). The hæmatoma covered the brain over the parietal region, the major part of the frontal lobes, and the anterior part of the occipital lobes. Over the parietal portion, down to the Sylvian fissure, the inner layer of the hæmatoma was adherent to the arachnoid. Further back the hæmatoma projected as a non-adherent sac. The arachnoid showed a decided opaque thickening over the entire convexity. With the exception of showing depressions which had lodged the blood the brain was normal. The pathology of the process is simple; a chronic intermittent inflammation of the inner side of the dura, with formation of false membranes, whose newly formed capillaries ultimately rupture. Huguenin states that the process involved the convexity fifty-four times in sixty-five cases, being bilateral in 56%. Diagnosis is difficult. Alcoholism, mental diseases, cardiac and renal disease, or traumatism may be the ultimate cause. The disease progresses by jumps with frequent remissions. Hemiplegias or monoplegias with headache, the symptoms improving after a time, are suspicious. The paralyses are frequently bilateral and sometimes spastic in character. The peculiar deviation and oscillations of the eye are almost

characteristic. Choked disk may frequently occur. Absence of involvement of the basal nerves would also point to a lesion of the convexity.—(*Prof. Frænkel; Berl. Klin. Wochensch.*, No. 27, 1891.)

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G. J. KAUMHEIMER.

CONTRIBUTION TO THE DIAGNOSIS OF TUBERCULAR MENINGITIS.—A well-built and well-nourished man of 40 became comatose at the moment of entering the hospital on foot, and so remained until death, two days later. There was rigidity of neck and spine and total absence of reflex irritability with the exception of the knee reflex. Pulse 80, R. 32, T. 99. A diagnosis of meningitis was made. On further examination a moderate empyema of the right side was found. The pus was found to consist of fat globules almost entirely. As F. has pointed out, this is of itself almost pathognomic of a tubercular empyema, even without the demonstration of tubercle bacilli. Cultures demonstrated the absence of pyogenic germs. Autopsy showed a most extensive tubercular meningitis, both miliary and solitary nodules being extremely abundant. Tubercular foci were found in both lungs and supra-renal capsules, though no symptoms of Addison's disease were present. This case shows the diagnostic importance of a væteriological and microscopic examination of empyematous matter.—(*Prof. Frænkel, Berl. Klin. Wochensch.*)

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G. J. KAUMHEIMER.

TRAUMATIC MENINGITIS TUBERCULOSA.—The causal relation between a tubercular meningitis and a preceding blow is often of medico-legal importance. A number of cases have been reported in which this disease is said to have followed an injury, although most of the detailed histories are too fragmentary to be convincing. Dr. Paul Hilberts relates a case in which death occurred three weeks after receipt of the injury. Autopsy showed extensive miliary meningitis, latent tubercular foci in one lung and cheesy bronchial glands. The boy had presented no symptoms before receipt of the injury and the tubercle bacilli had probably become dormant, until, released by the trauma, they had found in the injured meninges a suitable soil. Baumgarten has shown that the bacilli will grow in the rabbit's eye in five days. In this case the symptoms began three days after injury.—(*Berl. Klin. Wochensch.*, No. 31.)

G. J. KAUMHEIMER.

ON PSEUDO-TABES, OR TABES PERIPHERICA.—Dr. H. Higier discusses this disease whose differential diagnosis from true locomotor ataxia is often very difficult. It is due to a form of multiple neuritis in which the sensory sphere is most involved. He suggests that all cases of tabes reported recovered be treated with suspicion unless it can be clearly proven that they are not cases of pseudo-tabes. The etiology is tolerably clear. It is either toxic (lead, arsenic, alcohol, etc.) or toxæmic (diphtheria, variola, typhoid), or rheumatic (catching cold) in character. The ataxic walk comes on earlier in peripheral than in true tabes. In alcoholic tabes muscular atrophy begins early, as well as the electrical changes. The presence of R. D. speaks against true tabes, although the electrical condition is extremely variable in pseudo-tabes. The absence or presence of the patellar reflex is not of value in the differential diagnosis. Optic neuritis, if present, speaks strongly for a peripheral origin. The Argyle-Robertson symptom never occurs in pseudo-tabes, although ophthalmoplegia does sometimes occur. The Romberg symptom occurs in both forms. The absence of vesical and rectal disturbance, of the girdle sensation, and of the gastric and laryngeal crises, all have a certain value in differential diagnosis. He then relates the histories of three cases of pseudo-tabes of rheumatic origin (catching cold), all of which showed considerable improvement under appropriate treatment.—(*Deutsche Medic. Wochensch.*, No. 34, 1891.)

G. J. KAUMHEIMER.

A CURABLE FORM OF TABES.—Adamkiewicz (Przegląd Lekarski, Nos. 6 and 7, 1891) reports two cases of syphilitic origin, an energetic specific treatment resulting in complete cure. He concludes that tabes luetica is a specific entity and that its main symptoms are ataxia and considerable motor weakness soon leading to paraplegia, with absence of subjective sensory disturbance. Its recognition is very important as it is the only curable form. For the attainment of a good result careful selection of cases and a proper duration of treatment is necessary.—(*Wien. Med. Presse*, No. 38, 1881.)

G. J. KAUMHEIMER.

ACUTE ATAXIA FOLLOWING THE USE OF TUBERCULIN.—Dr. B. Scheube reports the case of a lady, who, about one month after twenty-three injections of tuberculin in seven weeks, (total dose 0.795 gm.) developed weakness of the left leg with

crawling sensations and Romberg and Westphal symptoms. Walk uncertain and stamping. Ataxia was distinct. As she was syphilitic locomotor ataxia was suspected. Within a month, however, marked improvement took place, soon followed by permanent recovery. The author attributes the ataxia to a toxic-neuritis due to the products of the bacillus contained in Koch's fluid.—(*Berlin. Klin. Wochensch.*, No. 36, 1891.)

G. J. KAUMHEIMER.

ETIOLOGY OF TABES.—Erb considers the causal relation of syphilis and tabes indubitably proven. He presents statistics of a third, fourth and fifth series of 100 cases, each from private practice, and fifty cases from hospitals. The private cases were all of the higher classes and of all nations. Of the 300 cases thirty-three, or 11%, were not proven to have syphilis, although twenty-four of them presented various suspicious symptoms, past and present. 267, or 89%, had syphilis, or at least a chancre. The proportion in the 500 cases is, not proven to be syphilitic, 10.8%; undoubtedly infected, 89.2%. The fifty cases from hospital presented the following figures: Not proven, 12, or 24%; admitted syphilis, 38, or 76%; Erb considers these figures due to ignorance or forgetfulness. The time of occurrence of the ataxia after infection varied as follows: 1 to 5 years, 12.3%; 6 to 10 years, 37%; 11 to 15 years, 24.7%; 16 to 20 years, 14.2%; 21 to 35 years, 11.4%. Examination of 5,500 men who were neither ataxic nor presented symptoms of active syphilis, gave the figures: Not infected, 77.5%; infected, 22.5%. Nineteen tabetic women of the better classes furnish the following figures: Surely infected, 9, or 47.4%; very probably infected, 8, or 42.1%; not infected, 2, or 10.5%. In 281 cases of locomotor ataxia he was enabled to elicit as causes: Syphilis alone, 77, or 27%; syphilis and catching cold, 32, or 11%; syphilis and overwork, 17, or 6%; syphilis and sexual excesses, 27, or 9.6%; syphilis and neuropathic heredity, 31, or 12%; syphilis combined with two or more of the above subsidiary causes, 65, or 21.9%; exposure, overwork, heredity, excesses, traumatism and all other causes, alone and variously combined, 32, or 11.2%. He says: "Syphilis is undoubtedly the most important and frequent cause of locomotor ataxia, all other factors being able to produce the disease in only a very small proportion of the cases, yet when syphilis is present a slight additional cause is able to produce the disease." He

then discusses the relations of the other etiological factors as follows: 1. Direct heredity was elicited in 275 cases. One patient's father was tabetic, patient had had gonorrhœa, had inguinal adenopathy, denied syphilis, although himself a physician. He also instances 2 syphilitic ataxics, who each had a brother similarly affected. 2. Neuropathic ancestry was found in 28%; could be proven as a cause in less than 1%. 3. Nervousness (congenital or acquired); in 251 cases 105 were found (42%). This is a very vague symptom, depending on the individual life of the patient, and has no bearing on the question. 4. "Catching cold" was given as a cause in 96 out of 278 cases, but when we consider how universally this is given as a cause of the most diverse diseases, and that it is given alone in only 4 cases, not much importance can be attached to it. 5. The same can be said of overwork, which was ascribed in 75 cases out of 279 (27%). 6. Sexual excess was admitted in 43 cases out of 271 (15.8%), and would seem to be of some little weight. In 3 cases this alone was given as a cause, in 27 in combination with syphilis. Erb knows of 8 cases in which men came back from their wedding trip with the initial symptoms of tabes. Coitus reservatus was noted once as a probable cause. 7. Misuse of alcohol and tobacco; inquiry has been directed to this point only lately. It was admitted in 29 out of 152 cases (18%). In view of their great use these figures lose their value to some extent. 8. Traumatism was alleged 15 times in 272 cases, only once alone. 9. Worry and mental excitement is noted several times. Erb is unable to give figures, but is of the impression that it occasionally has as much influence as heredity or nervousness. The occupation of the 550 cases was as follows: Mercantile pursuits, 207; manufacturers, 27; military men, 50; civil engineers, architects, etc., 39; civil officers, lawyers, etc., 34; medical men, 26; artists, teachers, professors, chemists, 24; planters and superintendents, 20; brewers and hotel-keepers, 19; capitalists (retired), 13; clergymen, 1; mechanics, 42; day laborers and peasants, 30; policemen, soldiers and railroad-men, 18. Three cases of tabes at an unusual age occurred; Male, infected at 57, tabes at 66; male, infected at 54, tabes at 59; male, infected at 19½, tabes at 22. Four cases of manifest tabes showed symptoms of active syphilis. Three cases occurred in which the wife was infected by the husband, both becoming ataxic. —(*Berl. Klin. Wochens.*, Nos. 29–30, 1891.) G. J. KAUMHEIMER.

FRIEDRICH'S ATAXIA; ITS RELATION TO THE CONDUCTING PATHS IN THE SPINAL CORD.—At the Congress of American Physicians and Surgeons, Dr. David Inglis, of Detroit, read a paper upon the above subject before the American Neurological Association. He reports in brief, a case of Friedrich's ataxia in a boy of six years of age, in which the symptoms conformed accurately to Friedrich's own summary of the characters of the disease, viz: "Impairment in the combination and harmony of movements developing gradually and spreading from the lower to the upper half of the body, and always involving finally the organs of speech. Sensibility and the functions of the special senses and of the brain are intact; paralysis of the sphincters and trophic disturbances are absent; less common phenomena are curvature of the spine, sensations of vertigo and nystagmus. From a clinical point of view we must regard the disease as a progressive paralysis of the faculty of combination of movements." A review of the thirteen recorded autopsies shows a practical agreement that the pathological condition underlying the disease consists in a progressive sclerosis which always affects the column of Goll, the column of Burdach also, but not so completely, the direct cerebellar tracts with Clark's column in most cases and the crossed pyramidal tract in some cases, but the sclerosis is here not so intense. We have to deal with a disease of the tracts which degenerate upward, which are usually looked upon as centripetal and as conveying sensory impulses. Author contends that the symptoms of Friedrich's ataxia afford a demonstration that these tracts do not convey sensory impulses upward, for sensation is not impaired, but that they are the main tracts for the conveyance of co-ordinated motor impulses downwards; that their anatomical relations with the medulla, cerebellum and mid-brain, as well as the facts of Friedrich's disease, agree in showing them to act to co-ordinate motor impulses of the mid-brain, cerebellum and higher and lower levels of the cord. The facts of embryology strengthen this theory; at the end of the foetal life, at a time when the pyramidal tracts are undeveloped, the posterior columns and direct cerebellar tracts are complete. Their function evidently begins at once after birth. When we remember that the new-born infant is characterized, not by voluntary control of its muscles, nor by accuracy of sense perception, but by an extensive co-ordination of involuntary motor functions, the conclusion is easy, that these, the only tracts

fully developed at birth, subserve these purposes. The direction of Wallerian degeneration is not necessarily the same as the direction of normal physiological impulses in any given nerve tract.

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A CASE OF TRAUMATIC LESION OF THE SPINAL CORD.—E. A. Homén records the case of a 35-year-old man who was stabbed in the back and presented about ten weeks after a scar over the spine, beginning immediately over the spinous process of the seventh dorsal vertebra and running downwards and slightly towards the left, as well as the following nervous symptoms: In a circumscribed spot situated 2.5 cm. to the left of the middle of the cicatrix there was a place with a diameter of 4 cm. where the sensibility of the skin was reduced to all kinds of stimulation. Below a line running from a few cm. beneath the umbilicus and back 5 or 6 cm. beneath the lowest point of the scar the sensibility of the skin began to decrease and 7 or 8 cm. below this line it was absent to all stimuli excepting pressure. On the entire right side there was no disturbance of sensation. The muscle sense had nearly disappeared on the right leg; also on the left lower extremity it was somewhat reduced. The patient could not walk but only support a slight portion of his weight upon his left foot. The muscles of both lower extremities were flaccid. The circumference of the right thigh was 2—2.5 cm. less than that of left. That of the right leg 1—1.5 cm. less than the left. The patellar reflex was slightly augmented on the right side. The cremaster reflex was distinctly present. The electric excitability of the muscles on both sides of the body was reduced, without, however, any qualitative changes being present. Defæcation and urination were somewhat difficult. Professor Homén thought that, although the cicatrix lay to the left of the spine, the knife-cut must have more involved the right than the left side of the cord, yet the right side was paralyzed and the disturbances of sensibility were situated on the left side. One would hence be led to think that the right side of the cord and the motor tracts of the left lateral columns were spared.—*Finska Läkarsällskapets Handlingar*, bd. 31, s. 521.

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FRANK H. PRITCHARD.

A CASE OF JUVENILE PROGRESSIVE MUSCULAR ATROPHY.—E. A. Homén describes the case of a 22-year-old girl whose parents and relatives had never suffered from any serious

disease and who, as a child, had always been well until she began at the age of 17 to suffer from numbness of the feet and a staggering gait. Shortly after she noticed a weakness of the hands, and somewhat later of the back, after which general weakness and diffuse pains over her whole body made their appearance. When she entered the hospital she presented a pronounced lordosis. Her gait was difficult, unsteady and staggering, with dragging of the toes. The gross strength of the hand and fingers was preserved; the grip of each hand was 25 kgm. She could offer but slight resistance to passive movements of the upper and fore-arms. The extensor muscles of the back were somewhat atrophic. Over the Trapezi, Deltoids and Serrati Antici Majores was found under the curvature of the ribs on the left side, a spot where the patient complained of a subjective feeling of numbness, and where the response to touch and pain was weakened. Upon the right side sensibility to touch, pain and temperature was reduced upon the entire limb and trunk below the curvature of the ribs. Localization was quite good. The muscular sense was intact upon both sides; the plantar and patellar reflexes seemed reduced upon the right side, while the abdominal and cremasteric reflexes were most pronounced here. The scar of the dorsal wound was situated to the left of the sixth and seventh dorsal vertebræ. The writer also reviews our present knowledge of this lesion.—*Hospitals Tidende*, R. 3, Bd. 8.

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FRANK H. PRITCHARD.

PROGRESSIVE MUSCULAR DYSTROPHY.—Erb (*Deutsche Zeitschrift für Nervenheilkunde*, July, 1891) reports the result of a series of observations made by himself and others in which he finds that a study of the pathological anatomy of the various forms of this disease points to the same conclusions as that of the symptomatology, namely, that juvenile muscular atrophy, pseudo-muscular hypertrophy and the infantile and hereditary forms of the muscular atrophy are essentially varieties of one and the same disease. Microscopical examination shows the presence of hypertrophy, atrophy and branching of the muscular fibres, increase in the number of nuclei and formation of vacuoles. Upon cross section the fibres have lost their polygonal shape and appear round. The amount and appearance of the interstitial connective tissue varies much in different cases. Where the muscular fibres are normal or hypertrophied it is but sparingly pres-

sent, where they are atrophied it is found in greater abundance, presenting many nuclei and a rich deposit of fat cells. These changes vary quantitatively in different cases but they are always present, and it would be impossible to differentiate the various forms by anatomical examination. In the majority of cases no changes are found in the nervous system but recently a number of observations of more or less degeneration of the anterior gray horns of the spinal cord have been made. It is impossible at the present time to determine what relation they bear to the disease.

JOS. KAHN.

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PATHOLOGY OF ACUTE (LANDRY'S) PARALYSIS.—Dr. Hun reported a case to the New York Neurological Society. The autopsy showed spinal cord normal except that it was slightly oedematous in the lumbar region. Just over left fissure of Sylvius, at junction of ascending and horizontal arms, was a patch of cicatricial tissue in the part where it was adherent to the cortex. The convolution was atrophied beneath. The skull opposite this point broken. The pia mater contained in its meshes many round and cuboidal cells. The only change in the substance of the spinal cord was slight alterations in the ganglion cells of the anterior horn. Walls of anterior spinal veins thickened. Slight neuritis in anterior roots of cauda.

B. M. CAPLES.

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BILATERAL SPASTIC PARALYSIS OF CEREBRAL ORIGIN.—J. W. Runerberg records the case of a 35-year old woman, who related that shortly after birth she was stricken with an apoplectiform attack with subsequent paralysis which was nearly complete on the right, and less pronounced on the left side. Her psychic development during childhood was slow. When coming under observation the following condition was noted: Upon the right side the characteristic picture of the so-called spastic infantile hemiplegia, with dwarfed development, especially of the arm, and with markedly pronounced spastic contraction of the muscles of the face and extremities. The same symptom presented itself upon the left side but was less developed. The bilateral appearance of the disease gives the case a peculiar and unusual interest.—*Finska Läkaresällskapets Handl.*, bd. 31, s. 147.

FRANK H. PRITCHARD.

A CASE OF BROWN-SÉQUAD'S PARALYSIS.—A. E. Kjaer reports the case of a patient, 35 years of age, a workingman, who in 1878 received a knife thrust in the back to the left of the mid-line. There followed severe hemorrhage, and as he was carried to the hospital he noticed that he had lost all sensation in his right lower extremity and was paralyzed in his left. He improved slowly, was obliged to go about for a long time on crutches, but after a year he commenced to work again. In June, 1890, he began to notice lancinating pains on the left lower extremity, and entered the hospital. There was then discovered pronounced atrophy of the muscles of the left lower extremity, the strength of the muscles was much reduced, the leg was carried stiffly in walking, increased cutaneous and patellar reflexes, the sciatic nerve in several places was sensitive to pressure; the temperature and sensibility were normal. Upon the left side of the body (trunk), a belt-like zone of three fingers' breadth, especially the last two, were very much atrophied. The same was true, and to a greater degree, of the pectoral muscles and the muscles of the upper arm, above all the triceps. The infraspinati and supraspinati were, on the contrary, strikingly well preserved, which, therefore, well agrees with Erb's description of this disease. The muscles of the fore-arm and hand were intact. The greatest circumference of each fore-arm was about 23 cm.; that of each upper arm 19 cm. The gluteal muscles, together with the musculature of the thigh, especially the quadriceps, were flaccid and atrophic. But slight resistance could be offered by the patient to passive movements of the knee-joint, yet, on the contrary, the resistance was quite preserved in the ankle-joint. No fibrillary trembling. The electric stimulability of the hand-muscles was reduced, with, however, no qualitative reaction in the hand. The functions of the cerebral nerves were normal. The internal organs presented nothing abnormal. The treatment consisted in massage and electricity.—(*Finska Läkaresällskapets Handlingar*, bd. 31, s. 147.)

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FRANK H. PRITCHARD.

MULTIPLE NEURITIS.—J. Pal has written an interesting monograph on the subject. Four of his cases, upon which autopsies were made, are especially important. Careful microscopical examination showed that in addition to extensive degeneration of the peripheral nerves changes were

found in the spinal cord. These consisted of capillary hemorrhages in the gray matter in one case, degeneration of the columns of Goll in the cervical region in two cases, and of the columns of Burdach, and the lateral pyramidal tracts in the cervical and dorsal region in one case.—(*Strümpel, Deutsche Zeitschrift für Nervenheilkunde*, July, 1891.)

JOS. KAHN.

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PRIMARY SPINAL HEMORRHAGE.—Dr. Boinet reports (*Le Cour. Méd. Oct. 17, 1891*) the case of a strong, vigorous man who, after a prolonged sea-bath was attacked by a fatal spinal hemorrhage. On autopsy meningeal, cerebral, medullary and spinal congestion was found as well as an apoplectic spot in the spinal cord opposite the centre of the seventh cervical vertebra.

J. G. KIERNAN.

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HEREDITY IN SPINAL DISORDERS.—Dr. Latel, of Aix, (*Jour. des Sociétés Scient., Sept. 23, 1891*) reports two families in which he has observed heredity in spinal disorders. In the first family he has seen evolve during four generations the special ataxia to which Friedrich has given his name. It presents all the cardinal symptoms; family character, motor inco-ordination shown in the arms and legs, at first in an uncertainty, but later with ataxiform characteristics, speech disturbance, absence of fulgurant pains, of visceral crisis and sensibility disorders. It differs from it by the constant absence of nystagmus and of all vertebral deviation. As has been pointed out by Mendel it made its onset by trembling of the writing in childhood. The disease has successively attacked eight members (five males and three females) of the family and has shown a predilection for the elder branch. The same family has one diabetic, one melancholiac and one hysteric. The second family presents a rare form of transverse myelitis with paraplegia affecting eight members of three generations; attacking all the elder branch between the ages of 18 and 40. The disorder is always the same paraplegia, more or less complete, anæsthesia, and abolition of reflexes.

J. G. KIERNAN.

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A CASE OF EPIDEMIC CEREBRO-SPINAL MENINGITIS IN CONNECTION WITH A BLOW ON THE HEAD.—F. Salzmann relates the case of a 24-year-old man who was struck on the

head without producing any external wound or impression on the bones of the skull. He lost consciousness, which, however, returned after a few minutes. In the course of a few days headache, vertigo, irregular pulse and fever, restlessness and stiffness of the neck appeared with subsequent death after a few days. The necropsy revealed an acute cerebro-spinal meningitis. Besides the diagnosis the case is of interest with regard to the question as to whether the blow received rendered him disposed to the coming on of a meningitis, and, if so, to what degree.—(*Finska Läkarsällskapets Handlingar*, bd. 31, s. 254.)

FRANK H. PRITCHARD.

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ON MYELITIS.—Dr. Hermann Oppenheim calls attention to the changes which our ideas on myelitis have undergone. A great many cases formerly classed as myelitis, have by increased refinement in diagnosis, been included and established as independent diseases. In an experience of 8 years in a nerve clinic he has seen but two cases of pure myelitis submitted to autopsy. An examination of the history of all cases labelled myelitis at the nerve clinic of the Charité in Berlin for eight years, shows that the greater number were cases of compression myelitis. Others were cases of syphilis of the cord, or specific meningo-myelitis. In the earlier years cases of hysteria had been treated for myelitis. Multiple sclerosis and combined degeneration are responsible for most of the remainder. He relates one case, treated as myelitis, which was found to be due to malaria, the chill occurring at night. Two others showed myelitic symptoms with others due to neuritis, both ending in recovery. Two cases of typical transverse myelitis with paraplegia, bed-sores, paralysis of the bladder and rectum, made incomplete recoveries. Of the two cases of primary myelitis, one developed in a tubercular subject, the other being the subject of cancer cachexia. In seven further cases, syphilis, rheumatism or malaria were given as causes. These became chronic and passed from observation, three of these had cerebral symptoms. Chronic myelitis was diagnosed four times. By far the greatest number of cases which by sole attention to spinal symptoms might be diagnosed as chronic myelitis were shown to be cases of multiple sclerosis by the occurrence of cerebral symptoms. As far as etiology is concerned myelitis may occur: (1), following the acute in-

fections (scarlatina, variola, typhoid, erysipelas, O. would add gonorrhœa); (2), following syphilis, rheumatism and malaria; (3), in the puerperium; (4), in the cachexia of malignant tumors. He calls attention to the fact that the disease very often has a benign course.—*Berlin. Klin. Wochensch.*, No. 31, 1891.

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G. J. KAUMHEIMER.

ON PARALYSES FROM LIGHTNINGSTROKE.—Dr. V. Limbeck divides these into direct, due to the immediate effect of the stroke, and indirect, due to its influence on other organs. The paralyzes may assume the most varied forms. The paralyzes are usually transient, the sensory disturbance disappearing before the motor. The late troubles resemble the hysterical paralyzes and may be safely referred to traumatic neurosis. Limbeck has found by the application of strong static discharges that the muscles suffer much more than the peripheral nerves. He was also able to produce paralysis, and even death, by allowing the discharge to act on the brain. Hemorrhages were not necessarily produced in the latter case.—(*Wien. Med. Presse*, No. 26, 1891.)

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G. J. KAUMHEIMER.

ON DIPHTHERITIC PARALYSIS.—Hochhaus treats of this subject in Virchow's Archiv, Bd. 117, H 2. In four cases submitted to minute examination a pronounced interstitial myositis was found. The fibres were affected to some extent as well as the nerves. Although Virchow and others had pointed out that the muscles might be affected in this disease the source of the trouble has been sought in the central organs or the nerves. Leyden has shown that the heart failure of diphtheria is often due to a myocarditis interstitialis. The great frequency of palatal and pharyngeal involvement would point to a local action of the ptomaines produced. Electric examination showed no qualitative, but only slight quantitative change, and the nerve trunks were not sensitive to pressure. Paræsthesiæ were not present, while the pharyngeal anæsthesia may be due to pressure on the nerve filaments by the interstitial exudation. Senator has published two cases which were supposed to be cases of multiple neuritis, in which the autopsy demonstrated that the main trouble had been muscular.—(*Deutsche Medic. Wochensch.*, No. 29, 1891.)

G. J. KAUMHEIMER.

**BILATERAL FACIAL PARALYSIS AS A FORM OF POLY-NEURITIS.**—Dr. Julius Althaus reports two such cases. The first followed a severe lymphangitis resulting from the bite of an insect, the second resulted from influenza. In both there were symptoms of the implication of peripheral nerves with R. D. in the facial muscles. As there was no ear trouble Althaus locates the inflammation in the Fallopian canal. He uses specific treatment only when clearly indicated. In the first stage salicylate of soda and antipyrin are of much benefit, later quinine in hydrobromic acid. The most important part of the treatment is the cautious use of the galvanic current, even in the early stages. He uses  $\frac{1}{2}$  to 1 m. a. with the anode on the mastoid and the kathode over the stylo-mastoid foramen for five minutes. Then labile application of the kathode over the paralyzed muscles. Treatment for at least three months is generally needed for a permanent result.—(*Deutsche Med. Wochenschr.*, No. 3, 1891.)

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G. J. KAUMHEIMER.

**PATHOLOGICAL ANATOMY OF RHEUMATIC FACIAL PARALYSIS.**—Prof. Minkowski has had opportunity to examine the nerve from a case of moderately severe facial palsy due to cold—the patient having committed suicide eight weeks after the beginning of the trouble. The central portion of the left facial nerve (the one involved) down to, and including the geniculate ganglion, was normal. Distally from this point the nerve fibres were found almost completely degenerated, showing extreme dissolution of the myelin sheath. The great superficial petrosal and stapedius nerves contained but few degenerated fibres, while at the origin of the chorda tympani but few normal fibres could be found. There was no trace of any inflammatory change in the aquæductus Fallopii, to which other authors have attributed the symptoms. The peripheral origin would explain the sensory disturbances sometimes observed.—(*Berlin. Klin. Wochenschr.*, No. 27, 1891.)

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G. J. KAUMHEIMER.

**MYELOMENINGITIS ANTERIOR CERVICALIS.**—Goldscheider reports the autopsy of a case described by Remak about fifteen months previously. The trouble consisted in a constant spastic tension of all the muscles of the upper extremity and thorax except those of the fingers. The reflexes of the

upper extremity were exaggerated, of the lower, normal. Death was caused by tuberculosis. Autopsy showed a thickening of the pia on the anterior surface of the cervical cord. Laterally this extended to a plane which would intersect the bottom of the posterior fissure. Longitudinally it extended from the fourth to the seventh cervical nerves, being most extensive over the fifth and sixth cervical segments. The meshes of the pia were filled with nucleated cells and free nuclei, which infiltration extended into the cortex of the cord as well as into the anterior columns and anterior nerve roots. G. would explain the observed symptoms by assuming an irritation of the anterior roots by the infiltration.—(*Berlin. Klin., Wochensch.*, No. 38.)

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G. J. KAUMHEIMER.

ACUTE SPINAL PARALYSIS; DEATH ON THE TWELFTH DAY; AUTOPSY SHOWING TRANSVERSE CERVICAL MYELITIS.—Dr. Wharton Sinckler, of Philadelphia, read a paper with the above title before the American Neurological Society, and reported a case which was of interest because, while having the clinical history both of acute poliomyelitis anterior and of Landry's paralysis, the post-mortem results showed a transverse myelitis involving only the cervical portions of the cord. The patient was a male 18 years of age; good family history. After exposure to cold in a few days he complained of general weakness, had fever, some pain in the back, cramp-like pains in the legs, and some diarrhoea. Within four days there was loss of power in both legs and partial paralysis in both upper extremities. There was temporary inability to void urine and some difficulty in swallowing. The muscles of the trunk were also paralyzed; both knee-jerks absent; loss of most of the superficial reflexes. Sensation was unimpaired. No muscular pain nor tenderness over the nerve-trunks. All muscles reacted to faradism. The patient gradually lost strength and died of respiratory paralysis on the twelfth day. From a study of the clinical features of the case the diagnosis lay between acute multiple neuritis, acute myelitis, Landry's paralysis, and poliomyelitis anterior. The author thinks it probable that in the early stages of poliomyelitis there is a hyperæmia, or inflammation of the cord in the affected areas which is not confined to the anterior horns.

B. M. CAPLES.

REFLEX EPILEPSY.—Bakowski reports the case of a girl, 16 years of age, with hereditary neurotic tendencies, who for nine months suffered from attacks of hystero-epilepsy which proved rebellious to treatment. Two carious teeth were extracted after which the patient had no further symptoms of the disease.—(*Internat. Klin. Rundschau*, No. 39, 1890.)

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JOS. KAHN.

HYSTERIA; DIAGNOSIS FROM EPILEPSY.—Dr. Matthieu (*"La Trib. Méd."*, Oct. 15, 1891,) reports the case of a 40-year-old man who is affected with epileptiform attacks. He has an aura, (red vision, aural ringing,) then utters a cry, his face becomes pale, he falls, twitches violently, the face becomes turgescient, the lips covered with a foam, sometimes bloody, and then, for some time after sleep results. These attacks occur every week, sometimes every fortnight, sometimes even twice in one night. The patient has total left hemianæsthesia and narrowing of the visual field. He is hypnotizable, depressed, suicidal, has frontal headache and morbid fear of shadows. For these reasons Matthieu believes his patient to be an hysteric, not an epileptic, more especially as the attacks are only a year old and succeed a violent emotion.

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J. G. KIERNAN.

HYSTERICAL TREMBLING.—Dr. Oddo (*"Journ. des Sociétés Scient."*, Sept. 23, 1891) states that while resembling all forms of trembling known hysterical tremblings have certain features in common. He bases this opinion on the observation of fifty-five cases. These common features are characterized by: (a) The nature of the exciting causes; from this standpoint three species of hysterical trembling can be distinguished: First, hystero-emotional trembling; sudden emotions; fright is a great factor of hysterical trembling; (grave accidents complicated or not with traumatism; whence the analogy of sudden emotions and traumatism, continued depressing emotions, worries, home troubles, etc. Second, hystero toxic causes of which the list is not yet complete and which approximate tremblings due to acute infectious diseases. Third, pure hysterical tremblings consecutive to apoplectiform, or convulsive attacks). (b) By the mode of onset. The evolution is often characteristic: the

prodromic period after the shock, the cerebral symptoms, the psychical disorder. (c) By the character of the tremblings once recognized: First, variability, spontaneous or provoked by hysterical accidents, emotions, etc. Second, paradoxal character resulting from the anomalies of hysterical trembling and the secondary symptoms which accompany them.

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J. G. KIERNAN.

ON HYSTERICAL SLEEP.—Prof. J. Steiner reports two cases of this kind which he says are very rare in Germany. They agree in all particulars with the description given by Charcot. He relates one point of special interest. One of the patients related that during one of her first attacks she was thought to be dead. She heard her mother-in-law urge preparations for burial which her husband would not listen to. While fully conscious of her position she was unable to cry out or otherwise attract attention. The patient was thoroughly credible. Such stories often circulate among laymen but have usually received no credence among the profession.—(*Deutsche Med. Wochensch.*, No. 27, 1891.)

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G. J. KAUMHEIMER.

A CASE OF SENSORY APHASIA WITH POST-MORTEM RESULTS.—A. Helwig first reviews the essential part of Wernicke's views on aphasia as well as Lichtheim's extension of these, and then communicates a case. The case was that of a 71-year-old sailor who was somewhat addicted to drink, and broken down. About four weeks before his entrance into the asylum he was suddenly seized with what was diagnosed as delirium. There was no paralysis; he had a fatuitous look; he did not seem to be deaf but hardly ever understood anything which was said to him. He could not understand that which was spoken to him unless it was accompanied by very distinct mimic gestures. He spoke very much, chiefly of his personal affairs. His speech was not very distinct, but in general articulate; often he would wholly mispronounce a word or use one entirely different from that which he evidently intended to use. He understood well the uses of ordinary objects but could not call their names, for example, he knew the uses of his clothes but could not name them; he called a watch, a top, or used words entirely incomprehensible. He could not

read nor write. He understood his own condition and would get angry because he could not remember the words. At the necropsy there was found at the base of the brain upon the under surface of the right superior frontal convolution, immediately outside of the olfactory sulcus, a circular, bronze-colored spot of 1 cm. diameter, which, after removal of the pia, showed itself to be a superficial softened spot. Otherwise the right hemisphere was normal. In the left hemisphere the frontal and central convolutions were normal; the superior temporal convolution, in its middle third and the most anterior part of the small, transverse temporal convolution, was found flaccid, softened, wrinkled and collapsed and of a faded yellow color. That portion of the superior temporal convolution which turns towards the fossa of Sylvius presented the same appearance to the same extent. The area of softening also extended on the outer surface of the temporal lobe along the superior temporal sulcus throughout its full depth, towards the gyrus angularis, which, however, was uninvolved. The softening included the margins of both the upper and lower temporal gyri, as the gray and about two mm. of the underlying white substance were involved, so that the most posterior portion of the area of softening at the bottom of the sulcus was separated from the posterior horn of the lateral ventricle by but 2-3 mm. of white substance. A section through the middle third of the superior temporal gyrus showed the white substance to be softened through the whole thickness of the gyrus while the gray substance had disappeared, as over the other softened areas to the thickness of a millimetre. Otherwise no foci were found in the brain.—(*Hospitals-Tidende*, R. 3, bd. 8, s. 913.)

FRANK H. PRITCHARD.

THE CAUSATION AND TREATMENT OF CERTAIN FORMS OF HEADACHE.—Dr. J. A. Wessinger has an article in the *New York Medical Journal* of Aug. 8th, which was read before the Michigan State Medical Society June 11th. He divides the subject as follows: First, Eye-strain with its Attendant Phenomena and Treatment. He thinks that the eye-strain is nervous and muscular tire, owing to improper co-ordination within the orbit. This form of trouble is usually found in those in the habit of reading by artificial light. On examination he found an irregularly curved cornea, causing dis-

tortion of images on the retina; that is you find astigmatism; or the patient may be the subject of hypermetropia, causing an imperfect focus of objects, or he may be myopic. Summing it all together the patient is subject to errors of refraction. There may also be defects in the ocular muscles—as a diverging and converging strabismus, or a “hyperphoria,” that is, “a tendency of one eye to rise above the level of the other.” Any one of these conditions may result in eye-strain and its peculiar forms of nervous derangements. Drugs are not needed, but properly adjusted glasses. Second, derangements peculiar to young woman and girls at puberty. Here we have an entirely different case to deal with, and we pass at once to those patients, who are the subjects of uterine or ovarian disease, in whom almost the first or most prominent symptom is a “boring” pain in the top of the head. We find a patient subject to leucorrhœa, irregular, scanty or profuse menstruation, oöphoritis, ovarian congestion, or ovarian neuralgia, or perhaps dysmenorrhœa. If married may have given birth to children in rapid succession, or had one or more miscarriages. May find cervical erosion, metritis or endometritis, perhaps a lacerated cervix, or perinæum, with uterine engorgement, or prolapsus. Having arrived at the cause of the patient’s trouble, treatment suggests itself. As to the disturbance so common to young girls at the age of puberty, he finds, that, as the girl approaches this period of life, instead of attaining a full rounded form, and a strong and healthy physique, she begins to dwindle, becomes pale, anæmic, and chlorotic; complains of headache, backache, and that indescribable malaise so common to these girls. The author here quotes from Dr. William W. Potter, in which he says the scholastic training of girls is being carried on with its greatest vigor at the very time when they are least fitted to bear the strain. The remedy in this case readily suggests itself. Much benefit is often derived from Bland’s pill (modified), and Flint’s Tonic chalybeate tablets. Third, Headache in Young Children. We pass at once out of the domain of both optics and gynæcology, and into that of hygiene and sanitary science. The usual age at which children begin their school life is between five and six years. At this age the whole being both mental and physical is in its highest receptive stage. He thinks the schoolhouse should be thoroughly ventilated and hygienic surroundings of the best; and gives the amount of fresh air required per capita, etc.

HEADACHE OF GASTRIC ORIGIN.—Dr. H. Westphalen calls attention to a variety of conditions which seem to be due to a lack of hydrochloric acid in the stomach. He mentions a number of cases of erythema, urticaria, and one of intermitting fever cured by doses of H. Cl. He has found the same medicine to give complete relief in a number of cases of hemicrania, especially the variety associated with gastric disturbances. He accounts for the good effects on the theory that with a deficiency of H. Cl. in the stomach various fermentation products are formed which have a toxic action on the organism.—(*Berlin. Klin. Wochensch.*, No. 37, 1891.)

G. J. KAUMHEIMER.

MULTIPLE NEURITIS ACCOMPANYING CANCER OF STOMACH. Dr. K. Minra reports a case of this kind. The patient was a woman 32 years old, who was the subject of advanced cachexia. The nervous symptoms arose gradually without pain. Nystagmus was present on looking outward or upward; weakness of limbs, but no paralysis and numbness; sole reflex lively; knee-jerk absent. Examination of the eyes showed an absolute central defect, of about 30%, with intact periphery for white. Papillæ were clouded, vessels tortuous. The symptoms gradually became worse until death, two weeks after admission. Examination showed extensive degeneration, in both peroneal and right tibial nerves as well as the cauda equina, up to the first lumbar vertebra. The sciatic nerves were lost. The orbital portions of the oculomotor and abducens were degenerated, the cranial portions normal. The fourth nerve was normal as far as examined. The nuclei were normal. The optic nerves, immediately behind the globe, as well as the papillæ, showed only a slight swelling. The deep orbital portions were missing. Reasoning from the fact that neuritis occurs in a number of other diseases, as diabetes, tuberculosis and alcoholism, Minra refers the neuritis in this case to a toxine produced by the neoplasm. He does not, however, believe it to be the only cause, as Teuscher has shown, that the degeneration of the nerves in wasting diseases is not in any direct ratio to the degree of cachexia. He gives short histories of twelve similar cases found in literature.—(*Berliner Klin. Wochensch.*, No. 37, 1891.)

G. J. KAUMHEIMER.

VARICOCELE AND NEURASTHENIA.—Dr. Wiederhold has been struck with the great frequency with which he has found varicocele in his neurasthenic patients. He believes it to be a fertile source of irritation and at least a pronounced factor in the production of neurasthenia. Unfortunately he does not give figures. Surgical treatment was not attempted. Treatment consisted of mild galvano-faradic massage applied to the affected part. The galvanic current was used in a strength of 1 M. A. and the faradic so that it could just be perceived. In connection with this, cool baths, with cold douche to the perineum and scrotum were employed. He suggests that cases of hysteria and neurasthenia in women may be due to a corresponding condition of the pampiniform plexus producing passive ovarian congestion. He has found the system of baths, massage and electrical treatment outlined above, of great value where ovarian pain was present.—(*Deutsche Med. Wochensch.*, No. 37, 1891.)

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ASSOCIATED MOVEMENTS IN CONTRACTURES.—Dr. Berthold Beer calls attention to certain phenomena of associated movements observed in the prodromal stage of late contractures following cerebral palsies. The paralyzed muscles contract to a certain extent with certain voluntary movements. These contractions are more discernible to the touch than sight. In a case of hemiplegia with contractures of the arm, passive movement was almost impossible. When the patient extended his right (sound) arm, the movement was slight. The result of a yawn was surprising. The contracted muscles relaxed so completely that extreme dorsal flexion of wrist and fingers occurred, while the arm was lifted and abducted, the shoulder being almost rigid before. The same results were obtained in a second case. Both improved under appropriate mechanical and electrical treatment.—(*Wien. Med. Blätt.*, No. 37, 1891.)

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G. J. KAUMHEIMER.

ON RADIAL SPASM.—Dr. L. Laquer reports the case of a merchant, æt. 45, who at first suffered from writer's cramp. This had improved somewhat, when various neurasthenic symptoms, such as palpitations, headache and nervous dyspepsia arose. After a very energetic course of massage, undergone in the hope of curing the writer's cramp, spasmodic contractions appeared in the extensors of the right

fore-arm, occurring every eight to ten seconds. These soon extended to every muscle supplied by the radial (musculo-spinal) nerve, and were accompanied by severe pain. Every remedial measure that consultants could suggest or money supply was used in vain. After this condition had lasted eight months, the author, to get rid of his importunities, told him to go to bed, and added, "some fine day you will wake up and find the spasm gone." This came true. It was afterward discovered that he had consulted a surgeon by letter, who had advised stretching of the brachial plexus. This frightened him very much. The author attributes the cessation of the spasm to suggestion and horror of the operation.—(*Berlin. Klin. Wochensch.*, No. 30, 1891.)

G. J. KAUMHEIMER.

COBWEBS AS A CASE OF TETANUS.—In the medico-legal section of the *Rivista Sperimentale* XVII. III., 1891, Professors A. Tamassia and F. Fratini publish the results of an experimental investigation on the possibility of the germs of tetanus being conveyed to wounds by means of cobwebs applied as a hæmostatic. This investigation was incited by a judicial inquiry in a certain case of death from lockjaw due to an injury received at the hands of another individual, and thus treated. The authors employed rabbits as the subjects of their experiments and sum up their results as follows: (1.) The germs of tetanus, abundant in certain soils, may be carried as powder to cobwebs on walls or elsewhere, and the application of these to wounds may be the cause of tetanic infection (experiments 3 and 4). In our case we have the correspondence of the clinical facts with the experimental results subsequently, since in the first case there was applied to the wounds cobwebs taken from a damp, low, ill-ventilated stable in which were kept cattle and horses. (2.) Although the germs of tetanus may be absent the cobwebs may collect other pathogenic germs, especially the pus forming micrococci everywhere diffused. (3.) The popular usage of cobwebs as a hæmostatic is to be reprehended, since it may give rise to serious morbid complications. (4.) In medico-legal point of view, the appearance of tetanus following the application of cobwebs to a wound, is an accident which is not to be ascribed to the primary lesion; and the long period (extending to forty days) that may pass between the application and the first appearance

of tetanic symptoms, does not contra-indicate the origin of this disorder, since the possibility of an equally long incubation of tetanic germs from soils have been experimentally demonstrated.

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H. M. BANNISTER.

**TETANY IN CHILDHOOD.**—Under the influence of Escherich's recent work on this subject Ganghofner has examined every child coming to his dispensary with laryngeal spasm. In the winter and spring months of 1890-91 he found thirty-three cases (twenty boys, thirteen girls; twenty-nine from 1 to 2 years, four between 2 and 3.) In twenty-four, typical spasms were observed, in one or all the extremities. The facial phenomenon and laryngeal spasm, the latter very rare in adults, were found in twenty-six; Trousseau's phenomenon in twenty-four cases. Mechanical hyper-excitability of the peripheral nerves was found in nineteen cases. Direct muscular hyper-excitability, which Babinsky had found so frequently, was found in only nine cases. The galvanic excitability of the motor nerves, as tested by K. S. Z., was found increased in all cases. The majority of patients were rickety and frequently dyspeptic; while Escherich has found the patients to be generally healthy. The relationship between tetany and laryngeal spasm and rickets is unmistakable. The intestinal disturbances are secondary in importance, although the disease may be due to the products of abnormal tissue change.—(*Wien. Med. Presse*, No. 28, 1891.)

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G. J. KAUMHEIMER.

**RETINAL ANÆSTHESIA.**—This disease is characterized by a peripheral zone of total anæsthesia, while the more or less extensive central portion of the visual field is hyperæsthetic. This peculiar combination of symptoms, for which we have no adequate anatomical explanation, was considered by V. Graefe to be of retinal origin, while we now refer it to a central origin, in the cortex of the occipital lobe. The objection, that, according to our modern theories, this should cause hemianopsia, and not concentric contraction, is obviated by the supposition that the trouble is bilateral and symmetrical. The author has found a partial hemianopsia in a very recent case. The trouble is functional in its nature. The character of the visual defect demonstrates this. The line of demarcation between the anæsthetic and intact parts

of the visual field is sharp and abrupt, while in similar defects, due to inflammation of the nerve there is a gradual transition from the one to the other.—(*Dr. Samelsohn, Deutsche Med. Wochensch.*, No. 30.)

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G. J. KAUMHEIMER.

DUBOISIA SULPHATE AS A SEDATIVE AND HYPNOTIC.—Dr. Gellhorn fully confirms the estimate of Ostermayer (*Allgem. Zeitschr. f. Psychiat.*, bd. 47) of the value of this alkaloid. He says: "Duboisia sulphate is a sedative of prompt action in psychoses attended by excitement, and I hope that as soon as others have tried it, it will supplant the decidedly dangerous hyoscine. The action is generally prompt, its hypnotic action in pure insomnia requires further investigation and trial, perhaps sulfonal acts better; in excited patients sleep generally results. The dose for subcutaneous injection in excited patients is  $\frac{1}{75}$  to  $\frac{1}{50}$  gr. (0.0008—0.0012) for women,  $\frac{1}{50}$  to  $\frac{1}{25}$  gr. (0.0012—0.0022) for men, for internal administration the dose lies between these limits. After continued use the dose requires an increase. With the exception of old and anæmic patients, no signs of intoxication were noticed.—(*Deutsch. Medic. Wochensch.*, No. 30, 1891.)

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G. J. KAUMHEIMER.

ANOSMIA FOLLOWING DOUBLE OÖPHORECTOMY.—Dr. S. Gottschalk reports a case of total loss of smell following about eighteen months after castration. The usual nervous disturbances of the climacteric were present, and the author attributes the anosmia to this condition. Great improvement followed the local use of galvanism.—(*Deutsch. Medic. Wochensch.*, No. 26, 1891.)

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G. J. KAUMHEIMER.

INITIAL PARALYSIS OF THE BLADDER IN ACUTE MYELITIS.—It has been stated as a general rule that the earlier in the course of spinal troubles that bladder symptoms arise, the worse the prognosis. Dr. Posner reports the case of a child—æt. 11—who was taken sick with fever and sore throat, which lasted two days. Four days later retention of urine occurred, which lasted six days. A paralysis of the lower limbs was found two days after the bladder trouble began, and lasted in all about three weeks. Recovery was complete. The absence of sensory symptoms would exclude

meningitis, leaving an atypical acute poliomyelitis as the only probable diagnosis. In the discussion it was pointed out that the sore throat may have been diphtheritic, and the paralysis due to a diphtheritic neuritis, although Posner vigorously opposed this view.—(*Berlin. Klin. Wochensh.*, No. 38, 1891.)

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G. J. KAUMHEIMER.

THE INFLUENCE OF ALCOHOL ON INFANTS AND HEREDITY.—Ch. Demme. Ueber den Einfluss Alkohols auf den Organismus des Kindes, Stuttgart, 1891 (Abstract in *Archivio Italiano* XXVIII. III. and IV), calls attention to the evils that follow the practice of giving alcoholic drinks to children and even to nursing infants as is the habit of some mothers and attendants. He gives the results of the best investigations on this point and shows especially how the evil effects are transmitted to adult age even when there appears to be no immediate inconvenience or injury. He gives also a remarkable comparison illustrating the evil effect of intemperance of parents on their offspring. He gathered the statistics for a number of years of twenty families, in ten of which one or the other of the parents was given to the excessive use of liquor, while in the other ten families both parents were temperate. Both series lived under identical conditions as to locality, social surroundings, occupations; indeed, in all respects they were perfectly alike as regards externals, neither series having any special advantages over the other that might affect the comparison. The ten families in which drinking habits prevailed had fifty-seven children. Of these twenty-five died during the first two weeks or months of life from defective development or convulsions; six were idiots; five were of diminutive stature, so that they might be considered dwarfs; five were epileptic, and of these, two had a hereditary tendency to drunkenness; one was choreic; five showed defects of formation or chronic congenital deficiencies. Ten only out of the fifty-seven, or 17.5 per cent, were of normal constitution and sound physically and mentally. In the ten temperate families there were sixty-one children. Of these five died during the first month of life; four were affected later with nervous troubles of a curable nature; two presented congenital defects of formation; fifty or 81.9 per cent were normally developed, both physically and mentally, and healthy. While the author concedes that in this kind of research it is

difficult to absolutely avoid criticism that errors may exist, yet he holds justly that so great a difference as is seen in these cases cannot fail to show the pernicious influence of drinking parents on their offspring. As regards the medicinal use of alcohol in sickness of children he does not deny that it may be, in certain circumstances, of value, but maintains that for healthy children its employment is not necessary or safe.

H. M. BANNISTER.

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THE CEREBRAL CIRCULATION DURING HYPNOSIS.—Drs. Sarlo and Bernardina (*Rev. Sperimentale* XVIII, III), publish an article on this subject in which they discuss some of the physiological literature and elaborately report a case in which they were able to make a careful study of the cerebral pulse through an aperture in the skull due to an old traumatism, and their paper is illustrated by sphygmographic tracings. The authors conclude as follows: (1) The cerebral circulation is different according to the hypnotic conditions, it appears that there may be hyperæmia in the reduced lethargic state and anæmia in the thus induced cataleptic condition. (2) Everything leads us to believe that antagonism between the cerebral and the peripheral circulation, during the hypnotic state does not exist. (3) A greater frequency and an apparent increase of the respiratory oscillations are observable in the hypnotic condition. (4) The psychic functions, during the hypnotic conditions, incite a vascular reaction, identical with that which occurs in the normal state, but less marked on account of the existing vascular constrictions. (5) The hypnotic state should not be considered as anything by itself, but serves only to put in evidence what already exists. The hypnotic manipulation, of whatever kind (sensory stimulation, suggestion, etc.) has only the effect to increase the excitability of such nerve centers that are, as it were, the *locus minoris resistentive*, and detach or functionally cut off certain nerve elements from the complex that forms the organic substratum of the healthy mind. In our case the cortical motor elements, morbidly excitable, were, through the hypnosis, separated from the rest.

H. M. BANNISTER.

THERAPEUTICS.

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EXALGIN IN PÆDIATRY.—Dr. Moncarvo (*Bull. gen.-de Ther. Med. et Chir.*, May 30, 1891.) concludes that exalgin acts excellently as an analgesic in children. It is also of value in chorea.

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J. G. KIERNAN.

METHYLENE BLUE AS AN ANTI-NEURALGIC.—Dr. R. Immerwahr reports that the use of this chemical in Dr. Brieger's clinic has often been followed by good results. Unpleasant effects, such as vesical irritation, are rare. In six cases of unilateral sciatica it was useless. Two cases of facial neuralgia, three of angiospastic migraine, several of purely nervous headache, one of muscular rheumatism, and two of herpes zoster were completely cured by doses of from  $1\frac{1}{2}$  to 5 grains 3 times a day. It is of use only in purely nervous pain.—(*Deutsche Med. Wochensch.*, No. 41, 1891.)

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G. J. KAUMHEIMER.

STRYCHNIA A FAILURE IN DIPSOMANIA.—Dr. Kleefeld has tried strychnia on seven notorious drunkards without the least effect as far as the appetite for drink was concerned.—(*Deutsche Medic. Wochensch.*, No. 39, 1891.)

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G. J. KAUMHEIMER.

THE SUBCUTANEOUS USE OF IRON IN NERVOUS TROUBLES.—Rosenthal (*Pest. Med. Chir. Presse*) advises this method of administration. He has detected the metal in his own urine within thirty to forty minutes after injection. He recommends two preparations: Ferrum peptonitum, produced by adding a solution of pepsin to one of ferric chloride, producing a powder soluble in water, which is given in doses of one syringeful of a 10 per cent solution every other day; and ferrum oleincum, given in the same dose in a 5 per cent solution in olive oil. The former is preferable. He recommends this method in delicate neurasthenic individuals, and in the asthenic dyspepsia often complicating anæmia, in which small doses of iron often produce severe digestive disturbances. Unpleasant effects have not been noticed.—(*Deutsche Medic. Wochensch.*, No. 30, 1891.)

G. J. KAUMHEIMER.

ACUTE IODISM AND ITS DANGERS IN SYPHILIS.—E. Finger discusses this subject in *Gazette Lekarska* (No. 24, 1891). The headache may reach an alarming intensity, symptoms of cerebral compression, vomiting, vertigo, delirium, staggering gait, somnolence and coma may supervene. One case showed alarming depression of the heart's action. Neuralgias of the cerebral nerves often occur. These symptoms are probably due to an increased cerebral circulation in vessels which have undergone specific alterations. Consequently caution is necessary in the administration of iodides in patients showing cerebral symptoms. The best method of obviating unpleasant effects is to give the iodide in milk; Belladonna may be added, as well as potassium bromide.—(*Wien. Med. Presse*, No. 33, 1891.)

G. J. KAUMHEIMER.

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TREATMENT OF EPILEPSY.—In the September issue of the *Medical News* is an extract taken from the *Bulletin General de Therapeutique*, No. 10, 1891, in which Poulet calls attention to the many cases of epilepsy that are rebellious to the isolated action of the bromides. Notably in small children, the bromides administered alone are generally inefficacious. A large number of epileptic adults are no less refractory to the action of the bromide. In other cases these inorganic salts are poorly borne in the large doses in which it becomes necessary to administer them. Under these diverse circumstances good results may be obtained by associating certain organic agents with the bromides. The doses of the drugs will vary according to the age of the patient, individual idiosyncrasy, and the intensity of the disease. In adults, generally from 75 to 90 grains of bromide of potassium for a woman, and from 105 to 120 grains for a man, may be given. With this may be given  $\frac{1}{6}$  of a grain of sulphate of eserine, or  $\frac{1}{6}$  of a grain of picrotoxin, or  $\frac{1}{65}$  of a grain of sulphate of atropine. Thirty drops of the tincture of Calabar bean or 12 grains of the crude drug in powder may be substituted for the eserine, and 30 drops of the tincture of belladonna or  $7\frac{1}{2}$  grains of the powdered root for the atropine. If the patient is a cardiac epileptic, and digitalis is preferred, 20 to 30 drops of the tincture, or 3 or 4 grains of powdered digitalis may be given. The drugs should be given before or during meals.

B. M. CAPLES.

ELECTROSTATIC TREATMENT OF STRANGURY.—“The longer I employ the influence machine therapeutically, the more convinced I am of its great therapeutic value.” With these words Prof. M. Benedikt opens an article with the above title. He first relates a case of traumatic neurosis with insomnia, tremor of the right and paresis of the left arm, sent him by Charcot. Within a fortnight the electrostatic douche had relieved the insomnia and tremor. A case of strangury, occurring in a “benign” case of tabes and which resisted all other remedies, readily yielded to the static douche and sparks over the spine and symphysis. The number of urinations was in inverse ratio to the number of applications. In another case, one application reduced the frequency of nocturnal micturition from twenty-five to nine times, and within two weeks to a minimum. He has found it of similar utility in a number of like cases.—(*Wien. Med. Presse*, No. 27.)

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G. J. KAUMHEIME

ON THE ABUSE OF HYPNOTICS.—Dr. John B. Chapin has an article in the *American Journal of Insanity*, for October, entitled as above, in which he says that within a comparatively short time a number of patients have been received into the Pennsylvania Hospital for the Insane, with a history of nervous exhaustion and physical impairment, followed by mental disorder; and they were complicated with such anomalous and unusual symptoms as to suggest a suspicion that a form of disease, perhaps heretofore unrecognized, had appeared. That is, that for the purpose of relieving the insomniac condition, hypnotics in large and repeated doses had been administered. This practice had been carried to such a degree that a pathological state was added or superinduced as the result of the administration of medicine to produce sleep. He thinks that upon receiving a patient for treatment it is important that a particular inquiry be made as to the previous treatment, where a suspicion of hypnotic drug poisoning exists. The physical symptoms in these cases have quite uniformly been noticed to be dilated sluggish pupils, diminished mental reflexes, feeble heart beat, flabby tongue, somewhat pale and covered with pasty coat, and a tumid stomach. He is of the opinion that in the treatment of insanity the use of hypnotics has been decidedly diminished, or discontinued, in recent years.

B. M. CAPLES.

THE ACTION OF SOME RECENT HYPNOTICS ON DIGESTION.—Dr. John Gordon has an article in the *British Medical Journal* of July 18th on this subject. Having observed that certain gastric disturbances, such as distaste for food, flatulence, vomiting and diarrhoea, occasionally followed the exhibition of chloralamid, paraldehyd, urethane and sulfonal, the following investigations were undertaken to elicit their action on digestion, with the following result in chloralamid: 1. Large quantities retarded the digestion of fibrin in the ratio of quantity employed. 2. Small quantities, for example up to 0.02 gramme, did not have any marked influence either in accelerating or delaying the digestion of fibrin. 3. Putrefaction was not retarded by either large or small quantities. The experiments with paraldehyd showed that: 1. Large quantities considerably accelerated the digestion of fibrin, and that the rate of this acceleration was distinctly in ratio with the quantity used. 2. Small quantities also increased, but to a less degree, the digestion of fibrin. 3. Putrefaction was prevented by the larger quantities of paraldehyd, and was delayed by the smaller quantities. The result of the experiment with urithane showed that: 1. Strong solutions delayed digestion; that the stronger the solution, the greater the delay. 2. Weak solutions neither delayed nor accelerated digestion. 3. Neither strong nor weak solutions retarded decomposition. Similar experiments with sulfonal showed that: 1. Strong solutions, (saturated or half saturated), considerably delayed digestion, and that the stronger the solution the greater was the retardation. 2. Weak solutions, such as 1-16 or  $\frac{1}{8}$  of a saturated solution had little effect, either in accelerating or delaying digestion, but when a solution of one-fourth of a saturated solution was employed delay in digestion took place. 3. Strong or weak solutions had no marked effect in retarding putrefaction.

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B. M. CAPLES.

HYPNOTISM AS A THERAPEUTIC AGENT.—Voisin reports the case of a seamstress, aged 22, who had been an invalid four years. During the last six months she cried, was unable to sleep, ate very little and became much emaciated. She was troubled with palpitation of the heart, became markedly anæmic and upon physical examination a systolic murmur was heard at the base. No signs of tuberculosis were present. For five weeks forced feeding was employed; she was

given cod liver oil and iron and morphia and atropia hypodermically. Her condition remained the same. She was hypnotized April 12, 1890, and in two days much improvement was noticed. The treatment was continued every second day until June, when she was discharged cured. On Dec. 11 she was still well.—(*Rev. de l'Hypnot*, January, 1891, and *Allgemeine Zeitschrift für Psychiatrie*, etc., 1891.)

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JOSEPH KAHN.

NEW METHOD FOR DETERMINATION OF TACTILE SENSIBILITY.—Funke proposes the use of solutions of glycerine in water, varying by 50 degrees. Drops of solutions of different density are placed upon adjacent spots by the tips of the examiner's fingers and the patient is then called upon to declare which is the most viscid. The degree of disturbance is shown by noting the percentage of the two solutions which the patient declares to be different.—(*Wien. Mediz. Presse*, No. 32, 1891.)

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G. J. KAUMHEIMER.

CARDIAC AGENTS AND THE HEART SIZE.—Germain Sée (*"La Prog. Med."* June 9, 1891,) states he has found by cardiac mensuration that the area of cardiac dullness varies in size from a periodic asthenia accompanied with flaccid muscle and loss of elasticity. This condition is decidedly observable in acute febrile diseases, chlorosis, digestion disorders and female genital affections. Sparteine reduces the cardiac dimensions, strengthens the muscular fibre, increasing tone and elasticity. Digitaline acts most on the right cavities, but only when these are pathologically dilated, it diminishes cardiac volume. Pot. iodid. has a similar but less decided action than sparteine. Antipyrin increases volume but without affecting contractility or arterial pressure. Pot. bromid. is antagonistic to pot. iod. and acts like antipyrin. Caffein does not affect the cardiac muscles but stimulates arterial muscular fibre and hence increases tension.

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J. G. KIERNAN.

CHLORALAMID IN EPILEPSY.—At the October meeting of the New York Academy of Medicine, Dr. Chas. L. Dana, in speaking of the symptomatic treatment of epilepsy refers to chloralamid as follows: "The most valuable adjuvant was hydrate of chloral, but I have found a new drug in chloralamid, which does all the good ascribed to the former drug, without affecting the heart or circulation."

## SURGERY AND TRAUMATIC NEUROSES.

AN OBJECTIVE SYMPTOM OF TRAUMATIC NEUROSES.—The main difficulty in the diagnosis of traumatic neuroses, which seems to be extremely common in Germany and one which renders simulation comparatively frequent, is the fact that almost all the symptoms are subjective. Dr. Oscar Koenig calls attention to the peculiar type of the contraction of the visual field, Förster's type, first observed in anæsthesia retinae. The peculiarities of this form are: The object brought toward the center from the periphery is visible further from the center than if its motion be reversed. If a perimetric examination be made in which the object is brought into the visual field from without, and another in which it is moved from the fixation point outward, the first field obtained is larger than the second. If similar examinations be made in which the object be moved, in the first from the temporal to the nasal side, and in the second vice versa, we obtain visual fields which do not cover each other. Each is larger in the direction from which the object was brought into the field. The author does not state whether this occurs in all cases, but claims that it cannot be successfully simulated.—(*Berlin. Klin. Wochens.*, No. 31, 1891.)

G. J. KAUMHEIMER.

A CASE OF TRAUMATIC NEUROSIS WITH ANOMALIES OF HEARING.—Drs. Freund and Kayser report the case of a healthy man, æt. 45, who sustained a severe shock by lightning striking an object very close to his left side. He was unable to move for four or five minutes, although not touched by the discharge. He felt crawling pains in both lower extremities and "a wind was rushing through his head." Half an hour afterwards he vomited. An hour later he was surprised to find that he did not hear a train until it rattled by—he being a flagman. He also found he could not hear conversation. His wife observed at this time a slight general tremor, and that his voice was halting and bleating. These and other unpleasant sensations increased so that he had to give up work at the end of a week. There were no motor symptoms at this time. Tactile sensation was abolished over the entire body. Only deep pressure or severe pinching were felt as touch. Slight

punctures were not felt; deep punctures were felt as a touch. The faradic brush was barely painful. On close examination a few small spots were found in which the loss of sensation was not so complete. Considerable concentric contraction of the visual field was found, more in the left than in the right eye. Absolute deafness existed on the left side, almost so on the right. Smell was totally abolished, taste almost so. Tongue, buccal and nasal mucous membranes, and external auditory canal totally insensitive. Corneal reflexes were absent. Pharyngeal reflex was present. Ears normal. The senses of tactile recognition, the muscular sense and the sensibility for passive motion and position were completely abolished. Notwithstanding this, there was no trace of ataxia or incoördination. In spite of the great contraction of the visual field, "orientation in space" was perfect. Treatment consisted of the application of the faradic brush. Under this, sensation slowly improved. Hearing in the right ear became better; the visual field expanded; taste and smell returned in some degree. On testing hearing it was found that bone conduction was abolished, and only high pitched notes could be heard. About nine weeks after the accident patient claimed to hear a noise in the left (deaf) ear each time he closed his eyes. Examination with the otoscope showed his statement to be true—the noise being audible to the examiner. With the mirror it was seen that this was due to a contraction of the tensor tympani.—(*Deutsche Med. Wochens.*, No. 31, 1891).

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G. J. KAUMHEIMER.

TREPHINING FOR TRAUMATIC CORTICAL EPILEPSY.—The patient had been struck by the blade of a propeller wheel, receiving a compound fracture of the frontal and right parietal bone. The fracture was 12 cm. long and 1 cm. wide. A fissure could be seen running from its anterior end into the roof of the orbit. The lower portion of the bone was depressed to the extent of 1 cm. and pushed under the upper. Between 40 and 60 gm. of contused brain matter were removed at this time. Without operative interference the wound was dressed and healed quickly. A progressive diminution of sight occurred so that at the end of the fourth week  $V = \frac{1}{4}$ . This was attributed to a development of callus in the fracture of the orbital plate, pressing upon the nerve. Patient was discharged cured at the end of four

weeks. At this time the lateral fragment was 1 cm. below the level of the upper one. The defect was closed by firm cicatricial tissue, except at its anterior end, where the pulsations of the brain could be seen. Patient remained well and was able to follow his laborious occupation for ten years. At the end of this time he was suddenly seized with a cortical spasm. This was repeated the next day. On the following day two fits occurred, and on the fourth day the convulsions had become so frequent that consciousness did not return in the intervals. In fact a status epilepticus had developed. The spasms involved progressively the left side of face, left arm, left leg, and the right side of the body in a reverse order. When the right side of the face was reached, a general convulsion took place. Operation five days after beginning of spasms. The cicatrix was laid bare and the depressed bone removed over an area 10 cm. long by 5 cm. wide. During this proceeding a cyst as large as a walnut, lying between the bone and the brain, was opened, whose contents were yellow and gelatinous. The wall of the cyst was mainly composed of cicatricial tissue to a lesser degree of brain tissue. The cicatricial tissue having been removed, it was seen that the entire right frontal lobe was flattened. The lepto-meninges were normal, but deficient over the cyst. This latter lay in a depression of the brain, whose surface was here soft and gelatinous. This debris was wiped away with a gauze and showed under the microscope detritus, fresh and charged blood corpuscles, nerve cells and fibres. Underneath this was healthy white brain substance. The depression was filled with iodoform gauze, and the wound dressed. Consciousness was regained in forty-eight hours. The wound healed promptly. Ten days after operation the gauze was removed from the cavity in the brain. This was followed by three slight facial spasms in the course of fifteen minutes. Discharged cured in four weeks with V-R.E.= $\frac{6}{12}$ ., V-L.E.= $\frac{6}{8}$ .—(*Dr. Franz Fink, Prog. Med. Wochensch.*, No. 30-31, 1891.)

G. J. KAUMHEIMER.

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EXCISION OF SPINAL CORD.—Goltz reports observations by himself and Ewald on a dog, from which the last 14 cm. ( $4\frac{1}{2}$  in.) of the spinal cord, including the last nine pairs of nerves were removed by two operations. Besides this, a total section of the cord had been made at the level of the third dorsal vertebra. This animal consists practically of

three parts, connected by the circulation. The front part being supplied with brain and cervical cord, the middle by the cord alone, while the posterior part had no connection with nerve centers. The anterior part barks with diminished voice, due to the loss of the abdominal pressure. The middle part shows a number of reflexes. On touching the middle line of the back, this part shakes itself. On irritating the skin of the sides, the spine is curved with the concavity toward the irritated side. On cooling the animal, the middle section may shiver alone, or conversely sweat alone in a hot atmosphere. The posterior part is totally paralyzed, and shows no trace of reflexes. The urine must be manually expressed, but is normal. The anus has retained its tonus. The fæces are not propelled continuously—the rectum being sometimes empty. The vessels of the posterior limbs are not dilated, in fact their temperature is often lower than that of the anterior. Nutrition is good, there being no decubitus. It was noticed that after the dorsal section of the cord the lower vertebræ became very soft. These observations show that animals will, with care, survive a loss of a considerable section of the cord, and that our views on vascular tonus need revision. G. also states that a dog which had survived the loss of the cerebral hemispheres for a year, had learned to eat and drink spontaneously.—(*Deutsche Med. Wochensch.*, No. 34, 1891.)

G. J. KAUMHEIMER.

TREPHING OF THE SPINAL CANAL FOR FRACTURE; RECOVERY.—Rieder reports a case of fracture of the arch of the sixth dorsal vertebra, followed by total paralysis below that point, including bladder and rectum, and by a beginning bed sore the next day. Upon raising the depressed arch, the symptoms rapidly improved. Rectum and bladder recovered in three weeks, and in four months patient could walk in a crutch-chair. Thirteen months afterward motor strength almost normal, as well as sensation on the right side. On the left side it was reduced. Skin and tendon reflexes were much increased and walk spastic to a high degree. Among seventy operations of this kind reported only three showed improvement. Owing to the grave prognosis, no harm can be done by operating. Schede has operated eight times in vertebral caries and has never seen the operation do harm. Bergmann believes that recovery to a certain degree is possible without removal of the depressed fragment.—(*Berlin. Klin. Wochensch.*, No. 39, 1891.)

G. J. KAUMHEIMER.

A CASE OF TIC CONVULSIF CURED BY INTRA-NASAL OPERATION.—A great many cases of this disease are of reflex origin. Fraenkel, in 1884, found a case in which irritation of the nose produced the spasm in a most violent form. Galvano-caustic treatment caused immediate relief and ultimate cessation. In this case the only nasal symptom was pain, due to a slight periostitis of the left nasal bone. There were no symptoms referable to the mucus membrane. The case reported by the author, of six years' standing, showed occlusion of the nostril on the affected side with considerable discharge of mucus. Examination showed a considerable hypertrophy of the mucus membrane at the anterior end of the lower turbinated bone. Removal of this by the incandescent loop in two sittings was followed by cessation of the spasms. The improvement has lasted sixteen months. The author has also observed a similar case in which nasal treatment was of no avail. This patient also had a sclerosis of the middle ear, and it is probable that the spasm was due to irritation of the nerve in the Fallopian canal.—(*Dr. F. Peltsohn, Berlin. Klin. Wochensch.*, No. 32, 1891.)

G. J. KAUMHEIMER.

RESECTION OF THE INFRA-ORBITAL NERVE AT THE BASE OF THE SKULL.—Krause has operated as follows: An incision, beginning 1 cm. in front of the lobule of the ear, is carried upward to the upper edge of the zygoma, anteriorly along this to the malar bone and downward to a level with its beginning. This incision avoids Steno's duct. Below the zygoma only the skin above the temporal fascia and periosteum are divided. The zygomatic arch is then cut through at each end and the flap turned down. The coronoid process of the lower jaw is then chiseled off and turned upward with the temporal muscle. The internal maxillary artery will be found upon the internal pterygoid muscle or between its two heads. It is to be included between two ligatures and cut between them. After this the muscle is to be dissected off the great wing of the sphenoid to some extent. The dissection can then be carried on with blunt instruments until at a depth of about 6 cm. the nerve is found where it runs from the foramen rotundum to the inferior orbital fissure. It can here be seized and resected. Krause performed this operation upon a patient in whom Volkman had resected the nerve three years before with temporary benefit. K. does not mention his ultimate result.—(*Berlin. Klin. Wochensch.*, No. 37, 1891.)

G. J. KAUMHEIMER.

CORTICAL PARALYSIS FOLLOWING FRACTURE OF THE OCCIPITAL BONE.—E. T., æt.  $2\frac{1}{4}$  years, fell from a second story window, Sept. 23, sustaining a fracture of the occipital bone. The fall was followed by deep coma. A fluctuating swelling as large as a child's fist was found over the occiput, from which cerebro-spinal fluid flowed on the ninth day. A few days after the accident, right-sided ptosis, bilateral abducens paralysis, right-sided hemiparesis and total blindness were found, as well as aphasia. Operation Oct. 21. A depressed fracture of the occipital bone, mainly on the left side, with a hernia cerebri about as large as a filbert, being found. The fragment was raised and the hernia, which probably belonged to the cuneus or first occipital convolution, was cut off; prompt union. The symptoms soon disappeared, although the right leg was ataxic for months afterward. At the present time the left optic papilla is fading, the right one being normal. After the wound had healed a peculiar trophic disturbance of the right hand was noticed. This consisted in swelling of the epiphyses of the bones, at first of the lower end of the metacarpus, and at intervals of several weeks, of the phalanges, ending with exfoliation of the nails.—(*Preliminary Communication by Dr. Clæes, Berlin. Klin. Wochensh.*, No. 37, 1891.)

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G. J. KAUMHEIMER.

CEREBRAL ABSCESS. OPERATION. RECOVERY.—W. R., æt. 47 had always been healthy, with the exception of scarlatina at 10, and two abscesses behind and above the right ear at the age of 20 and 21. These received no attention and healed spontaneously, although the military surgeons regarded them as signs of caries. In March, 1889, he was suddenly seized with intense boring pain in the right side of the head and vertigo. The pain was relieved somewhat by firm pressure. On arriving at the hospital, three weeks after the beginning of the trouble, he complained of the intense boring pain, located at a point about three inches above and a little anterior to the articulation of the lower jaw on the right side, radiating into the shoulder and eye of the same side. There was a feeling as if the right eye was forced forward. No other symptoms due to the nervous system, except considerable apathy. About three weeks later, œdema and paralysis of the left lower extremity set in. The vertigo disappeared, the pain became so severe as to prevent sleep. Pulse at this time 54. Still later (about ten weeks

after inception) the left arm became paralytic. At this time ptosis was observed. Later on somnolence and choked disc; in fact, the typical terminal picture developed, until at the end of three months from the time of first complaint, the relatives permitted operation. The abscess had been located in the upper part of the paracentral lobule and in the central convolutions of the right side. On exposing the brain in the region of the intense pain, the dura was found non-pulsating. Incision into the brain was followed by the exit of 2 to  $2\frac{1}{2}$  oz. of pus. The cavity was irrigated and plugged with iodoform gauze. The pulse rose to 80 within 24 hours. Consciousness was regained on the third day. It was found that the cerebral symptoms disappeared in the reverse order of their appearance. Recovery was complete in six weeks. —(Dr. Carl Lohmeyer, Berlin. *Klin. Wochensch.*, No. 37, 1891.)

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G. J. KAUMHEIMER.

CEREBRAL COMPLICATIONS IN CHRONIC OTITIS MEDIA.—After a careful study of thirty-six cases Dr. Poulsen (*Nord. Med. Arkiv.*, Band XXIII., Nr. 15,) lays down the following general rules as guides in the operative treatment: In cases of chronic otitis media complicated by cerebral symptoms, he would first decide whether the pus stagnation is in the cavum tympani or in the cellulæ mastoëdia, and even though there were no definite symptoms pointing to disease of the latter he advises resection of the mastoid process. If the symptoms continued and some doubt existed as to the diagnosis he would first trephine over the sinus transversus taking out a piece of bone 1 inch behind and  $\frac{1}{4}$  inch above the center of the bony canal of the ear. By this method the operator might discover an epidural abscess and by the aid of a probe the entire fossa sigmoidea could be explored. If no abscess was found, but the sinus lined with pus, puncture of the cerebellum should be made. In case of a negative result the sinus should be punctured, and if pus was present, opened. If, on the other hand, the dura was found natural at the trephined opening, he places the next point of trephining  $1\frac{1}{4}$  inch above and behind the auditory canal, before puncture of the cerebellum is resorted to. The most frequent seat of brain-abscesses is in the temporal region, consequently this district should invariably be explored before puncture of the cerebellum is thought of. Among a number of cases observed in the various hospitals of Stockholm, the doctor finds that in 64, 6% of all cases of chronic

otitis media with cerebral complications, the lesion was found on the right side, in 35, 4%, on the left side. These figures, the author says, coincide with the observations made by Körner, who, among 151 cases, found disease of the middle ear in 59, 6%, on the right side, in 37, 7%, on the left side, while in 2, 7%, the middle ear on both sides was diseased. Dr. Körner gives the following anatomical basis for his observations: In 77% the fossa sigmoidea passes more forward and outward in the pars petrosa and pars mastoidea on the right side than on the left side, consequently the wall separating the sinus from the tympani, on this account, is a great deal thinner on the right side.

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M. W. VENN.

THE TREPHINE IN PARETIC DEMENTIA.—Dr. P. Rey, of Marseilles, thinks (*"Prog. Med."* Oct. 10, 1891,) that, as in paretic dementia, there is an augmentation of the volume of the brain because of congestion, and also diminution of cranial capacity by increase of the bony cranium, therefore compression results which trephining would benefit. Surgical interference later is useless.

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J. G. KIERNAN

PRESENT STATUS OF BRAIN SURGERY, BASED ON THE PRACTICE OF PHILADELPHIA SURGEONS.—Dr. D. Hayes Agnew read a paper with the above title before the American Neurological Association. The deductions presented by the author are as follows: 1. That all fractures of the skull, attended with a depression, however slight, and entirely irrespective of symptoms, should, in view of the late after-effects, be subjected to the trephine. 2. That trephining for traumatic epilepsy promises only palliation at best. 3. That trephining for Jacksonian epilepsy is to be regarded as only affording temporary benefit. 4. That trephining for abscess, in view of the fact that all such cases left alone almost invariably terminate fatally, is entirely proper, and that the earlier such operation is done the better. 5. That trephining for intracranial traumatic hemorrhage is both an imperative and highly promising operation. 6. That trephining for cephalalgia or traumatic epilepsy (medical measures having failed) should be undertaken with every prospect of success. 7. That trephining for hydrocephalus is a useless operation. 8. That trephining for microcephalous, independent of athetosis, confers no credit

upon surgery. 9. That it is more than probable, as our observations multiply, the sphere of the trephine, as a preliminary for the removal of brain tumors, will be lessened, rather than amplified.—(*Med. Rec.*, Sept. 26, 1891.)

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B. M. CAPLES.

NEURALGIA FOLLOWING FRACTURE SUCCESSFULLY TREATED BY OPERATION.—Dr. R. H. Sayre reports a case in the *New York Medical Journal*, Aug. 22: Patient was 19 years of age, and with the exception of an attack of small-pox when 10 months old, had had good health. Consulted him on account of an obstinate neuralgia of the right thigh. When 5 years of age he fell, fracturing the right femur in its upper third; from which he had good recovery. At the age of 9 years he fell and fractured the right femur at a point a little higher than the former injury, and also dislocated the hip joint. The dislocation was reduced, and the fracture united with little shortening and no deformity. When 13 years old he fractured the right femur for the third time. Bones united at an angle, causing a very marked curving of the thigh, outward and forward, giving rise to between two and three inches of shortening. Since last accident patient has had constant pain at site of injury, which was much increased on motion. Pain ran down the outer side of the thigh as far as the knee. Most intense at the point of greatest deformity, just in line of the external cutaneous nerve. Pain was much increased by the manipulation of the thigh, in his endeavors to locate the cause of the trouble. Pain had increased so much that patient had begun the use of morphine, to secure relief. On manipulation of the thigh he could feel what seemed to be a ridge of bone, over which a cord-like process could be slipped, like a violin string, and it seemed probable that some fibres of the external cutaneous nerve, or some of its branches, were either pressed on by the callus or caught between the ends of the bones. On June 10th, assisted by his father, his brother, Dr. Allen and Dr. Carlisle, he operated; cutting down on the most prominent part of the curved femur, finding that part of the vastus externus muscle was so twisted on itself as to run at right angles to the long axis of the femur. Cut down to the bone. Found no exostosis, with the exception of a most minute point, which could hardly be considered abnormal, but which he removed. Then passed finger completely around femur, stripping up muscles for an extent of two or more

inches, hoping to find some sharp projecture to account for the pain. Failed to find anything. Introduced rubber drainage tube. Sewed up the wound. A letter from the patient, dated June 29th, says the result of the operation, so far, is perfectly satisfactory. He has had no pain since, and is able to walk and go about without trouble. He is inclined to believe that the relief of tension, caused by splitting up the fascia lata, which bound down the muscles very tightly, relieved the neuralgia.

B. M. CAPLES.

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## PSYCHOLOGICAL.

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### PATHOLOGY AND SYMPTOMATOLOGY.

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EPILEPTIC INSANITY; ITS ETIOLOGY, COURSE AND TREATMENT BASED ON THE OBSERVATION OF ONE HUNDRED CASES. —Dr. E. D. Fisher has an article in the *Medical News* of Nov. 14th on the above subject. He says the distinction between epilepsy and epileptic insanity is often difficult, if not impossible, since, pathologically, we have the same ill-defined conditions present in each. Indeed, we find many in whom epileptic seizures occur only at rare intervals, and of whom the condition in the inter-paroxysmal state is apparently normal, but who during the paroxysms are maniacal, melancholic and demented. He says the disease represents a psychical entity, the chief characteristics of which are: 1. Irritability, as shown in excessive mental instability, often of a religious or erotic type. 2. Periodical attacks of mania or melancholia, with or without convulsions, accompanied by delusions of persecution, and a marked tendency to impulsive acts, rendering the patients dangerous to themselves and others. 3. An early or late dementia. Bevan Lewis, in his late work, claims to find degeneration, especially involving the small pyramidal layer of cells in the cortex of the brain, and consisting of fatty degeneration of the cell-nucleus, with later changes, causing vacuolation. The cortex of the brain is certainly the seat of the pathological changes in epilepsy, and it is to it that we must direct our attention in our future studies. Treatment by

bromides given in sufficient doses would diminish the frequency of seizures very considerably. In the maniacal seizures, hyoscyamine, with or without morphine, hypodermically, is to be recommended, or chloral in large doses during the periods of excitement.

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B. M. CAPLES.

TRAUMATISM AS A CAUSE OF PSYCHIC DEGENERACY.—Dagonet ("Ann. Medico-psych.," July—August, 1891) states that traumatism in early life may set up a condition of degeneracy, out of which may develop psychical disorders. He cites the case of a seven-year-old girl who fractured the skull in the frontal region. She developed peculiarities of character and at the age of eighteen became a victim of cyclothymia.

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J. G. KIERNAN.

PARETIC DEMENTIA AND ALCOHOLISM.—Dr. Rousset ("Ann. Med. Psych.," July—August, 1891) opened the discussion on paretic dementia and alcoholism before the French Alienists. He pointed out that there were four views held on the subject: First: That alcoholism is a chief cause of paretic dementia. Second: That alcohol produces only a pseudo-paretic dementia. Third: That paretic dementia and chronic alcoholism are diverse states but chronic alcoholism may eventuate into paretic dementia. Fourth: That alcoholism is merely simple, exciting only where the predisposition exists. Dr. Rousset accepted the last view which was supported by clinical observation and pathology. Magnan pointed out that the pathological changes resulting from alcoholism were such as tended to produce dementia but only in predisposed cases did paretic dementia result. Mairet and Bonnet found that alcoholism occupied the first rank as a cause. Combemale after alcoholizing animals through an œsophageal tube, found that after a period of excitation of five or six months cerebral and muscular enfeeblement resulted. The animal had frequent terrors and disseminated paralyses. At the seventh month dementia and paralysis resulted. Epileptiform attacks occurred. Christian objected to these experiments as the conditions in man differed. Mairet claimed that the alcoholic paretic dement differed from the ordinary, in the fact that he suffered from hallucinations of sensibility analogous to those of the ordinary alcoholic. He had lancinating sensations

which he attributed to electricity by persecutors. Sometimes local anæsthesias were present. Unlike the ordinary paretic dement the gait simulated spasmodic ataxia. The alcoholic paretic dementes were violent and difficult to manage. The delusions were not continuously exalted. Depression mingled with persecutory delusions was frequent. Muscular excitability was at its maximum. The progress of the psychosis was characteristic. Remissions were frequent. The disease progressed slowly except where epileptiform attacks occurred which frequently carried the patient off. Charpentier had studied seven hundred and thirty-five cases and had autopsied sixty-eight cases. Of these twenty-five were not alcoholists, forty-three were of inveterate alcoholic antecedents, fourteen of them had characteristic alcoholic meningeal and visceral lesions. Twenty-one presented meningeal adherences alone and eight had no meningeal or alcoholic visceral lesions. He concluded from these cases that the existence of alcoholic paretic dementia could not be disputed. Among alcoholics, paretic dementia was most frequent. The special form of paretic dementia is most grave among great drinkers, who, before the onset of paretic dementia, have not had cerebral symptoms. Alcoholism may produce paretic dementia symptoms without the presence on autopsy, of the characteristic paretic dementia lesions, diffuse, proliferating interstitial cellular sclerosis. Proliferating cellular sclerosis cannot exist without resultant paretic dementia, but paretic dementia may exist without it. Camuset expressed the opinion that alcoholism produced meningo-encephalitis.

J. G. KIERNAN.

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ON PRIMARY CHRONIC DEMENTIA IN THE YOUNG—"DEMENTIA PRÆCOX."—Prof. Peck adds several cases to those reported by Scetlin (see this journal, Vol. 2; No. 1) although he does not completely agree with S. in some points. S. attributes it solely to premature ossification of the sutures, and has found the trouble only in females with neuropathic ancestry. Peck has found it in males and with well-formed crania. It sometimes follows febrile disorders. Peck has an impression that several of his cases developed after a seemingly slight influenza.—(*Prog. Med. Wochensch.*, No. 27, 1891.)

G. J. KAUMHEIMER.

MELANCHOLIA IN RELATION TO LITHEMIA, BRIGHT'S DISEASE AND GLYCOSURIA.—This is the title of an article by Dr. C. Eugene Riggs. He holds that melancholia is dependent not so much upon the environment as upon somatic conditions. Its important symptom is mental pain. It most frequently occurs in conditions of physical weakness and poor nutrition. Insomnia is a frequent and distressing symptom. The paper contains the histories of a number of cases that have come under the author's personal observation. He considers that melancholia is usually due to a uro-toxic condition in so far as it is dependent upon Bright's Disease or Lithemia. He says the relation between Glycosuria and Melancholia is very intimate.

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B. M. CAPLES.

THREE DIAGNOSTIC SYMPTOMS OF MELANCHOLIA. — Dr. Landon Carter Gray read an article on this subject before the American Neurological Association, published in the *Journal of Nervous and Mental Diseases*, Jan., 1890, detailing sixteen cases of melancholia, in which either the three symptoms—melancholia, insomnia and post-cervical ache—or some two of them were present. Since then he has had the opportunity of observing twenty cases of the same disease. The position he then took was that these symptoms were of great diagnostic importance in recognition of simple melancholia. Of thirty-six individuals examined by him, in thirty-four the melancholia was accompanied either by post-cervical ache or insomnia, in other words, in only two, was one or the other of these two latter symptoms lacking. In nineteen cases of the thirty-six all three symptoms were present, melancholia, post-cervical ache and insomnia, namely, in 53%. In seven the post-cervicalache was lacking, 19%. Insomnia was lacking in only two cases, 3%, and in those two the post-cervical ache was also absent. Melancholia is different from mere depression of spirits, as can be seen if the patient is closely observed. Each melancholic individual has a peculiar facies, which is difficult to describe, but which, as nearly as can be put into words, consists of a slightly suspicious look, and sadness that is seldom lighted by a smile, and an evident effort in thinking. This last factor can usually be brought more distinctly into relief by a little careful questioning and attention, because it is due to a dull cerebral reflex. Ask a patient a question, then watch the face keenly, and it will be perceived that there is

a perceptible interval between the reception of the asking sound, and the answer, during which interval the expression is one of some mental effort, such as an ordinary quick and healthy mind will only need to make when it encounters a mental problem of unusual difficulty. The patient is generally aware of this dull cerebral reflex, and confesses it by stating that he has to concentrate his mind upon the question asked him. If we realize that these cases of slight melancholia are not only slightly dulled in their mental operations, but that they are also incapable of receiving a pleasurable sensation, we can understand why the facies should be thus peculiar. As a matter of fact melancholiacs are, as Talleyrand said of the great Napoleon, unamusable, although to an extent of which Talleyrand perhaps never dreamed. It is through the different sensations that a human being receives his pleasures in life, such as the optic auditory, gustatory, olfactory, tactile, temperature-bearing and muscle-sense-bearing, as well as through the different visceral sensations, coming from the sexual, and other internal organs of the body; but a melancholic, suffering from a disease of the cortex, whose exact nature is as yet unknown to us, receives only unpleasant, or even painful sensations through all those different nerve-tracts, so that it is as impossible to give pleasure to such a melancholic cortex, as it is to refract, unimpaired in its color, a ray of yellow light through a pane of blue glass. While the same thing is true in varying degrees of mental depression, due to many other diseases than melancholia, it is never to be observed in such totality. Out of the warping influence of this melancholic cortex springs the suicidal impulse, which is so marked a feature. The post-cervical ache does not always consist of aching; but I have selected this somewhat indefinite term, because patients find difficulty in describing the peculiar sensation, which is apt to vary in each case: One will speak of it as a "drawing," another as something uncomfortable, another as actual pain, another as vague aching, another as fullness, another as a "creeping," another as a wild feeling that startles him and makes him feel hysterical, another as a numbness and tingling, while in some few it may consist of actual fibrillary twitching, with an accompanying vague muscular sensation. In most cases this post-cervical ache disappears upon full recovery, although it is apt to recur for years afterwards, whenever a patient's general health becomes impaired; or it may have

a sequelæ of neuralgic attacks. Insomnia varies greatly in degree. In some cases it may be so great that the patient will only obtain an hour or two of sleep each night for months. In others it may only cut off a few hours of usual slumber, or even occur only from time to time, or for a short time after the onset. Usually it persists for months after the other symptoms have disappeared, and if not properly treated may last for years. He attaches so much importance to this symptom, that he never considers a patient cured until the tendency has been thoroughly eradicated. By this triad of symptoms he feels certain that we can differentiate cases of simple melancholia from all other forms of disease. He does not claim for these three symptoms separately, the diagnostic value which he does claim for them when grouped together.

B. M. CAPLES.

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MENINGEAL ALTERATIONS IN THE INSANE.—Y. Del Greco, *Revista Sperimentale*, XVII, III., thus concludes a paper on this subject. Leaving aside any further considerations and giving attention to cases in which we find in the pia signs of fibrinous, or fibro purulent leptomeningitis, hyperæmia or pronounced œdema as phenomena caused in great part by the inter-current diseases, especially that which has been the immediate cause of death, we may say: (1.) That in cases of progressive paralysis, we find at the autopsy periarteritis of the smaller vessels of the pia and of the cerebral substance together with diffused nuclear infiltration of the pia especially in the part immediately adjoining the cortex, and generally the indications of chronic fibrous leptomeningitis. Also in the smaller vessels of the same region, together with the peri-arteritis, endo-arteritis obliterans and in the larger vessels thickening and fatty degeneration of the muscular tunics. (2.) The regularity with which we find in paretics peri-arteritis of the smaller vessels, even in individuals who succumb at the beginning of the disease, when the indications of atrophy and sclerosis of the cerebral substance are still wanting, tends to support the theory of Meyer, Rumpf, and latterly of Mendel, that the vascular lesions due to persistent hyperæmia represent the beginning of the series of histological lesions of the brain in paresis and that they are followed by alterations of the neuroglia and nerve cells. (3.) That in pellagrous insanity the autopsy shows the cerebral pia diffusely opaque with slight

increase of the connective tissue and with moderate nuclear infiltration either diffuse or surrounding the smaller vessels of the pia and cerebral substance. (4.) That in some cases of pellagrous typhus and especially in cases of acute delirium we find in the pia indications of recent hyperæmia. (5.) In some other forms of mental alienation (periodical and epileptic insanity, terminal dementia, etc.), the pia is found slightly thickened and the vessels rigid and tortuous; alterations very similar to those observed in the autopsies of individuals of sound mind but of an advanced age and marasmatic. In some rare cases the thickening of the pia is very marked and the substance of the brain appears atrophied and indurated and the lateral ventricles dilated and filled with serous fluid. (6.) That in all forms of insanity thickening of the meninges ordinarily commences in that part situated over the central convolutions.

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THE VASO-PARALYTIC DIARRHŒA OF THE INSANE.—A. Christiano, *Archivio Italiano* XXVII. fasc. 3 and 4, 1891, examining microscopically the abdominal lesions in cases of the obstinate and fatal diarrhœa which is often met with in the insane, finds, as he thinks, the cause in the alterations of the solar plexus, which consist in the cases which he has examined in nuclear proliferation with degeneration of the nervous elements due to a general inflammatory condition of the nerve. The alterations of the intestines he considers altogether secondary to the above conditions. As to the cause of the inflammation of the plexus, he considers it rather obscure, but conjectures that it may be due to the general disturbed state of nutrition in the forms of insanity in which it occurs and possibly to the fact that the abdominal sympathetic forms, in such cases, the place of least resistance to the toxic elements or micro-organisms that may develop it.

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ON A CASE OF "NONA" (?) FOLLOWING INFLUENZA.—A man, æt. 54, was taken with influenza in February, but did not seek medical advice. In the beginning of March he was seized with extremely violent headache. There were at this time no other sensory or motor symptoms. The headache resisted all medication. Later the patient became deeply somnolent, remaining in this state four weeks. During this time he could be aroused, but was apathetic and soon slept

again. Reflexes were normal, as was the temperature. Pulse 50 to 60. No paralysis whatever. This condition slowly improved. This trouble most closely resembles Gerber's disease (vertigo paralysant), although the latter is a disease of warm weather. Tumor can be excluded by the absence of all focal symptoms a year after the attack. The most probable cause is a pathological process involving the central gray matter of the third ventricle, and this would bring the disease into close relationship with poli-encephalitis. The translator observed an exactly parallel case last April, during the prevalence of the grip, which lasted into July before complete recovery took place.—(*Dr. Isidor Priester, Wien. Med. Wochensch.*, No. 27, 1159.)

G. J. KAUMHEIMER.

INFLUENZA IN A DANISH INSANE ASYLUM, WITH SPECIAL REFERENCE TO POST-MORTEM RESULTS.—K. Helweg records the results and action of influenza in the asylum at Aarhus, Denmark. The disease appeared in the asylum January 4th, a few weeks after it had been first observed in the neighborhood. Out of 520 insane 41 were so severely attacked that they were confined to their beds. The disease seemed decidedly contagious. It spread with difficulty on account of the wards being divided one from another. Eight of the twenty-five wards were spared altogether. When a ward would be invaded the disease would rapidly run its course to proceed to another. The transmission of contagion could be distinctly seen in the sick-wards where those stricken down in the other wards would bring the disease with them and transmit it to patients there. Seven patients had pneumonia. A relatively large percentage (six) died, of which four from pneumonia. Among these was a man with such a severe cerebral disease that he must be excluded; (the post-mortem results in the remaining five, which were women, were all more or less similar). The most essential result was extreme hyperæmia of the cranial bones and membranes, where the dura and the brain-mass itself twice presented fresh and strongly vascular pseudo-membranes with small hemorrhages as well. The veins and arteries of the thinner cerebral membranes were filled to bursting with blood; the large basal arteries were so filled with coagula that they stood out like cords or those of an injected specimen. The brain-substance itself was also very hyperæmic, and its consistence increased. The average

weight of these brains was above the ordinary of those of Aarhus. The writer gives also the history of the man mentioned and those of three other cases where influenza could not be diagnosticated during life, including the post-mortem findings of a case of influenza in a (sane) nurse who died of pneumonia. Here also great hyperæmia of the brain and its membranes was found, yet not so pronounced as in the insane cases. The writer has seen influenza accompanied by severe psychic symptoms, in a few cases, the condition resembled acute delirium, which, however, is transient and seems easily controlled by antifebrin. On the contrary, in two hopeless cases of insanity the disease had such a favorable and curative action that they may be regarded as cured. In both these cases there was pneumonia.—*Hosp. Tidende*, R. 3, Bd. 8, S. 729.

FRANK H. PRITCHARD.

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CEREBRAL DISTURBANCES FOLLOWING INFLUENZA.—Muel-  
ler (*Berlin. Klin. Wochenschr.*, No. 37, '90) reports the case of  
a man aged fifty, who after an attack of influenza presented  
a condition of great physical exhaustion. In a few weeks  
his mind seemed affected and he became somnolent, so much  
so, that he could be roused only with the greatest difficulty  
and then he would almost immediately fall asleep again.  
There was pain upon pressure over the vertebræ, the neck  
was rigid, the pulse was small and irregular, the skin reflex-  
es were diminished and the tendon reflexes were absent.  
This condition lasted for about two weeks when he began to  
improve. He slept less and his mind became clear, but he  
had no recollection of what had occurred during the course  
of the disease. The reflexes returned to normal. The  
author thinks there was a cerebro-spinal meningitis similar  
to that seen after other infectious diseases.

JOSEPH KAHN.

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INFLUENZA A PRIMARY DISEASE OF THE NERVOUS SYSTEM.—  
Schmitz, in a paper read before the forty-fifth meeting of the  
Psychiatric Society, at Bonn, holds that influenza is a dis-  
ease of the nervous system with secondary involvement of  
the heart, lungs and digestive organs. In several hundred  
cases which he observed the nervous symptoms were always  
primary, followed in every case by secondary involvement  
of the other organs. None of his alcoholic cases presented

symptoms of insanity. The course of the disease was somewhat slow but the prognosis was usually favorable.—(*Allgemeine Zeitschrift für Psychiatrie und Psychisch-Gerichtliche Medizin*, 179, 1891.)

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JOSEPH KAHN.

ON HYSTERICAL ŒDEMA.—Dr. Gajkiewicz describes a case (*Gazette Lekarska*, 1891, No. 3) as follows: Suddenly, with or without a preceding hysterical attack, a part of the body shows swelling of variable extent. The color of the skin may vary from normal to dark blue. The swollen parts are hard, and of normal or subnormal temperature, the extent of the swelling constantly varying. The œdema, which may disappear as suddenly as it came, is probably due to vaso-motor disturbance, whether of spastic or paralytic type, the author is unable to say. The diagnosis is made from the history and the presence of stigmata. The differential diagnosis must consider: 1, Deep phlegmon; 2, rheumatic œdema; 3, erythromelalgia; 4, Raynaud's disease; 5, syringomyelia; 6, Morvan's disease; 7, brachial neuritis.—(*Wien. Med. Presse*, No. 38, 1891.)

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G. J. KAUMHEIMER.

PARETIC DEMENTIA AND PHTHISIS.—Dr. M. Klippell (*Jour. de Med. de Paris*, September 13, 1891,) claims that a peculiar type of phthisis is associated with paretic dementia. The evolution of the disease is abortive and the symptoms not decided. There is neither cough, expectoration, fever nor hæmoptysis. In the majority of cases the pulmonary lesions are found associated with fibroid changes which check its rapid progress. The cerebral meninges rarely contain tubercle. Meningeal tuberculosis may produce a pseudo-paretic dementia symptom. Klippell refers these peculiarities of phthisis in paretic dementes to a supposititious cacæxia. He has found phthisical lesions in  $\frac{5}{31}$  of his autopsies on paretic dementes.

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J. G. KIERNAN.

NECROPHILISM IN THE DEGENERATE.—Dr. H. Dagonet discusses (*Ann. Medico-psych.*, July-August, 1891) in the opening article of a series on psychoses in the degenerate, the phenomenon of necrophilism. He cites from Herodotus the case of Periander, the tyrant of Corinth, who copulated with

his wife after death. He cites also the case of the driver of a Rochelle hospital, who committed odious profanation of the bodies of females dying in the hospital, whatever might be the age or disease of the deceased. He shamelessly avowed these acts. Dr. Dagonet believes with Brierre du Boismont that these phenomena alone do not constitute evidence of insanity.

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J. G. KIERNAN.

HYSTERIA FROM QUININE.—Dr. Pispiris (*Prog. Med.*, August 15, 1891) reports the case of a 32-year-old female in whom three grains of quinine produced an attack of hysteria major.

J. G. KIERNAN.

NEW BOOKS, PAMPHLETS, ETC.

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HOSPITAL BULLETIN OF THE SECOND MINNESOTA HOSPITAL FOR THE INSANE.—This is a new quarterly publication to be issued by the medical officers of the hospital above mentioned, of which Dr. A. F. Kilbourne is Superintendent. In the present number there are two very interesting original articles. One on Paranoia, by Dr. A. M. Phelps, and the other on Acute Delirious Mania, by Dr. N. M. Baker. The article on Paranoia is an excellent résumé of the chief characteristics of this most interesting disease. The article is accompanied by the history of a typical case which came under the doctor's observation. The article on Acute Delirious Mania is a pretty careful description of the symptoms and course of this disease, and is well worthy of being preserved in the library of the specialist. Accompanying the publication are some medical notes on General Paresis; on An Interesting Autopsy, and other matters of local interest. We are glad to commend this new departure in hospital work, and hope that it will be continued by the officers of this institution, and that others may emulate their example. If every institution in America had such a publication, an immense amount of material that is now going to waste would be saved to the profession. The supervising editor is Dr. R. M. Phelps, first assistant physician.

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# ATHETOSIS, WITH CLINICAL CASES.

By ARCHIBALD CHURCH, M. D.

Professor of Neurology, Chicago Policlinic.

---

The condition first well clinically described by Hammond in 1871 and by him denominated Athetosis, is sufficiently familiar to neurologists, but in general practice is considered a very rare and curious anomaly, the significance of which is completely overlooked or misunderstood. Recently a number of pronounced and some rare instances of this form of diseased mobility have fallen under observation, and in every instance men of large experience in general surgical, and even orthopedic practice had not observed or had misinterpreted the phenomenon. That it is moderately rare is well shown by Osler's tabulation of 151 cases of cerebral palsies in children, in which it was noted eleven times, and is very properly differentiated from post-apoplectic chorea and tremor.

By European writers, as a rule, all excesses of motility following or associated with cerebral lesions are indifferently called choreic or spasmodic, but a careful or even superficial examination of a well-marked case of athetosis shows that in many respects there is no similarity whatever in the grotesque amoeboid activity of the athetoid digits to the gesticulatory movements of chorea or the implied rigidity of spasm. This distinction is to be insisted upon because, as is to be indicated later, athetosis is a localizing sign of presumptive value, and consequently of surgical importance, and always, probably, except in exceedingly rare hysterical instances, that should be readily detected, an indication of serious

organic brain disease. However, there may be an association of athetosis and chorea in the same case, both due to the same ultimate cause, or chorea of the ordinary type may occur in an individual presenting athetosis from birth, as I have once noted, without any material modification of either condition, or some rigidity may be present.

In Hammond's first case the symptom, for it can be called nothing more, appeared in an adult after a so-called "epileptic paroxysm" and was attended by great pain in the affected hand and foot, which were the seat of constant "complex involuntary movements," and these could not be controlled in any degree by the will, but persisted even during sleep. In the very large majority of instances, however, the condition dates from birth or shortly thereafter, is unattended by any impairment of sensation other than is common to the entire member or side of the body, is not marked by pain, and subsides during sleep or prolonged rest with support of the affected muscle groups and their congeners, and is intensified by emotion and most notably by voluntary effort to use the parts.

A somewhat full description of a case will afford an opportunity to discuss the various features of the condition consecutively and will avoid repetition.

CASE I.—Johny B., aged 4 years (see cut 1), the child of healthy Irish parents, has presented peculiar movements of the right hand ever since birth. The mother was a primipara and the labor is described as extremely tedious, protracted and difficult, and finally terminated by the application of forceps to the head. The medical attendant is an especially skillful obstetrician and surgeon, and there is no doubt that every care and precaution was taken. A scalp wound over the right frontal eminence was caused and another over the left occipital region, both being considerable in extent and probably the former was attended with fracture as depression and adhesions are now present. He has never had any serious illness or convulsions and physio-

ally has been in excellent health. He has been slightly backward about talking and possibly is not as keenly intelligent as might be reasonably expected, but on the other hand is a bright, cheerful, active little fellow. From overaction of the right calf muscles he has always had difficulty in walking and there was a well-marked tendency to equine varus of the foot without bony deformity, a condition readily corrected by a plaster bandage, after wearing which



*Cut 1.—From a Photograph.*

for a few weeks the foot remained in good condition and is now, a year later, used with but a slight trace of difficulty. The hand is the seat of athetoid movements of a slow tentacle-like character, the position of the hand upon the wrist, and the fingers upon the hand, and in relation to one another, changing more or less continuously, and in a way suggestive of no volitional intention. If he attempts to grasp any object with this hand or to hold it still,

the athetoid activity is immediately increased and the fingers are, especially in prehensal attempts, widely and divergently extended, particularly at the metacarpo-phalangeal joints which, like those of the phalanges, are capable of a much wider range of extension than normal or than those of his left hand. This is most marked in the index which is capable of nearly as much movement in the direction of extension as in that of flexion. Finally when a small object is grasped it is with the palm, and the fingers take almost no part in the retention, which is uncertain at best. In this effort the entire member participates by being held rigidly at the shoulder and elbow and the over-activity of the right side of the face becomes apparent, (see cut 1,) showing, with the difficulty in the gait and foot, the hemiplegic distribution of the trouble. The facial over-activity is particularly marked in all expressions of emotion, suggesting a weakness of the left side which, however, is only apparent. This state of over-action on the right side is analagous to the late over-action in other conditions of a hemiplegic character and has been found in all the cases that I have been able to examine.

The muscles of the forearm and hand are firm, well developed, and when their incoördinate action permits, a test shows a fair degree of strength. The forearm measures slightly more than on the unaffected side. The over-development or full development of muscles subjected to athetoid activity is always noticeable and atrophy is never present.

In this case sensation in all its factors seems perfect, though the age of the patient precludes the most delicate examination. It is certain that touch, temperature, pain and pressure are fairly well distinguished, as is also the sense of position, for with closed eyes he will represent with the unaffected hand the various distortions assumed by the athetoid member and locate its position. The reflexes throughout the right side are in slight excess of the left, no

ankle clonus, nystagmus, inequality of pupils, variation to electrical control or impairment of trophic function in epidermal structures are present.

At the first glance one would be inclined to attribute to the use of forceps and the following local injury a causal rôle, though the anatomical reason for it would be hard to bring forward. But there are other factors of equal or more importance. The prolonged labor, which in itself probably is sufficient to account for the trouble, must not be forgotten. Indeed, Osler very reasonably urges that the association of cerebral palsies, with protracted labor, is an urgent indication for forceps in its prevention, and many pædiatrists can be quoted to show that the use of forceps almost never in itself produces serious injury to the brain even in the cases where external appearances would lead one to apprehend such an accident. It was also incidentally discovered that the child's uncle on the mother's side presents a most typical case of athetosis. With him the left side is affected, the hand being in constant motion, even during sleep. In this case no use of forceps or difficult labor had taken place. I do not know that such relationship has been heretofore noted, but am disposed to question whether there may not be a family tendency to such accidents aside from the inheritance of narrow pelves in the females, and other causes of tedious labor, just as a tendency to apoplexy late in life is not infrequently observed to be a matter of clearly marked heredity.

The next case is presented because of the symmetrical and universal distribution of the athetosis, which is of a pure type. Double athetosis is not much more rare than the monoplegic or hemiplegic variety, but usually is marked by spasticity, inability to walk, great mental enfeeblement or idiocy, and is not infrequently denominated spastic paraplegia, the rigidity and increased myotatic irritability being the most pronounced features.

CASE II.—Alvina W., single, female, age 30 years. Some what lacking in mental development, but not by any means idiotic. She states that at the time of her birth the midwife made some mistake, but what it was she can not tell nor can any particulars be learned and there is no external indication of injury to the head or scalp. She has never suffered from any serious physical illness and aside from her athetoid condition is in fair health and strength, of a cheerful, bright disposition, able to get about readily, to dress herself, make her bed and lend a little assistance to those about her in the County Infirmary. When sitting at rest nothing very noticeable is seen, but upon the slightest attempt to speak or to move all her extremities and particularly the fingers and toes, and her face, head and eyes are started into peculiar uncertain, rather haphazard contortions, which under effort or emotion of any sort, extend to the upper parts of the limbs and the trunk. The fingers become widely spread out extended and flexed, either in combination or separately, yet she is able in a way to direct them as in buttoning her dress, which is accomplished laboriously and only after much time. The effort to do this will cause her to perspire freely and show fatigue. The toes present the same athetoid movements in a very high degree. Owing to the constant muscular activity and the tendency of the toes to spread laterally and work individually, the form of the foot is considerably changed having a triangular outline with almost as much distance between the great and little toes as from the fifth toe to the heel. The implication of the face is also symmetrical, exaggerating and caricaturing every facial expression. In the cut (2) taken from a "snap shot", she is trying to sit quietly, but was pleased at having her picture taken and the resulting smile becomes the distortion indicated. It also shows the over-activity of the muscles of the neck and the movements of the fingers. The constant action has resulted in an unusual development of the musculature of the entire body so that

she presents a rather masculine figure and doubtless the skeleton itself has been correspondingly modified. Even the muscles of respiration and vocalization are implicated. Her speech is halting, stammering, spluttering, explosive and modified in every way, resembling no other speech defect with which I am acquainted, presenting to the ear the disordered muscular action which in the extremities is patent to the eye. There is also a disorderly nystagmus in which



*Cut 2.—From a Photograph.*

the eyes move laterally, obliquely and vertically independent of each other and which, with all the other conditions noted, ceases during rest and is correspondingly emphasized by emotion. The special senses are not notably impaired in any way and general sensation is intact in all its forms. Response to electricity is normal. All reflexes are exaggerated. There is no ankle clonus or loss of sphinteric control.

CASE III.—Thos. C., aged 13, of strong, vigorous, healthy, English parents, born without difficulty, head presenting, labor lasting about two hours. Peculiar movements of all extremities have been present since birth. Has never had any serious illness or convulsions. The boy is somewhat backward mentally, principally from lack of instruction, most of his life having been passed in the County Infirmary. He reads some, answers questions intelligently and is quick and observing. His physical health is fairly good, but he is not large for his age. With the exception of the

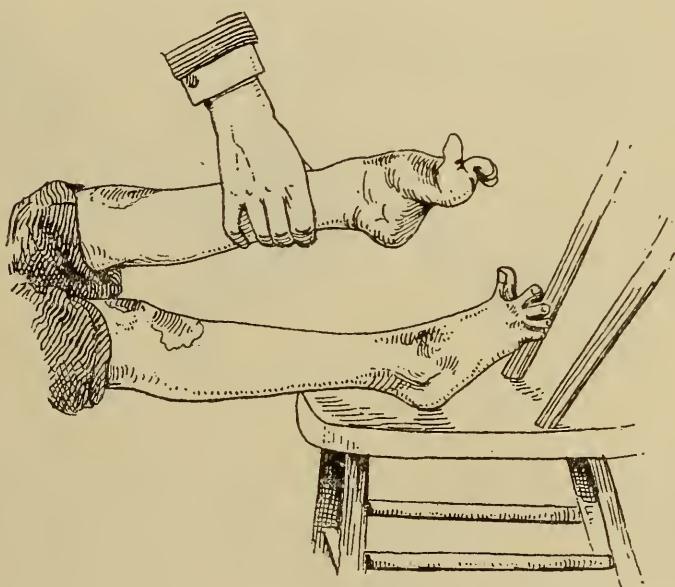


*Cut 3.—From a Photograph.*

face and neck athetoid movements are present in the entire body, most pronounced, contrary to the usual rule, in the lower extremities, which, during the waking hours, are in nearly constant contortions from the pelvis down, and so vigorous are they, that a strong pair of shoes will be rubbed to pieces in the course of a few weeks. Though he is unable to walk he manages to crawl around on elbows and knees in a wriggling, uncertain, but rather rapid way, causing,

with the constant friction incident to the athetosis, numerous callosities about the joints. During sleep all movements cease and, when quietly resting in his chair or bed, the trunk and upper extremities are free from movement, but immediately manifest it upon voluntary effort or emotion. Prehension is practically impossible. (See cuts 3 and 4.)

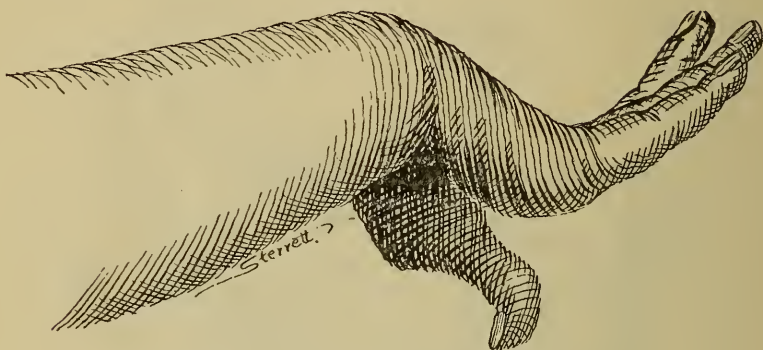
There is slight voluntary power to direct movements of the arms and legs, but their course is subject to wild excursions, reminding one of the incoördination of advanced ataxia and attended with an aggravation of the athetoid



*Cut 4.—From a Photograph.*

features. The peculiar and characteristic condition in the feet is shown in cut 4. Speech is also modified as in the preceding case. Special senses, general sensation, control of sphincters and trophic conditions are all normal. There is an exaggeration of all reflexes; the muscles are fairly developed and firm; there is a tendency to "cross-leg" and the over-action of the calf muscles has produced pronounced deformity at the ankle joint, which can, however, be very nearly reduced by manual manipulation.

With such disorderly movements and total irregularity of muscular action it is difficult to generalize, but in these and other cases there is observed a preponderating action, in the upper extremities, of flexion at the wrist and extension and divergence of the digits (see cut 5) and, in the lower extremities, the homologous groups of muscles are similarly most affected, producing equine position of the foot with extension and spreading of the toes. The ankle joint is the only one that I have found notably deformed though the increased range of motion in the smaller articulations has been already noted.



*Cut 5.—From a Photograph.*

The lesion in this condition according to Hammond, who has collected the reports of thirteen autopsies, invariably involves the optic thalamus and the lenticular nucleus of the striate body, one or both, or the motor cortex corresponding to the affected muscles. In none of these reported cases was the motor tract destroyed and consequently the local condition must be of an "irritation" character, a sort of discharging lesion constantly operating.

Where the lesion in the basal ganglia infringes upon the capsule it determines motor and sensory symptoms with anatomical exactness, but in the cases so far reported the interference with the capsule has usually spared the sensory portion. In double athetosis it is reasonable to suppose that the lesion must be cortical, as it is difficult to imagine symmetrical damage at the base, while the vulnerability of

the cortex and its liability to inflammatory processes which are capable of producing permanent effects, lays it liable to widely distributed lesions not rarely symmetrical. Its appearance, too, in cases marked by general cerebral atrophy and wide spread sclerosis is indicative of a cortical distribution in the symmetrical form of the affection. At any rate one is now justified in locating the disturbance in every case of athetosis in one or the other position and cognate conditions, must determine, which it probably is while its nature may be fairly inferred from the clinical aspects of the case.

Regarding treatment there is medically very little that can be done. Hyoscyamus, cannabis indica, gelseminum and similar sedatives will reduce and temporarily modify the movements, but disturb the general health and their withdrawal is promptly followed by a full recurrence of the original state. Surgical measures have been advocated by some, and Horsley goes to the extreme of recommending, that every case of athetosis should be operated upon and the related cortical centres removed. He certainly did not have the double form in mind, when giving this advice. Where, however the athetosis as in Case I. is practically limited to a few muscles, the proposition may be considered. Such decortication of course produces paralysis in the member which may or may not be preferable, and few patients would willingly accept the exchange. If the hope and probability of a return of voluntary power in the hand should be well founded, from the vicarious control of associated or symmetrical cerebral centres a great gain and practical cure would result. To attack the basal lesion is of course impossible. The procedure of Hammond in stretching the peripheral nerves though it gave some relief for a few months each time in his first case, as reported by him, can not be reasonably recommended.

## TRANSLATORS.

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### ITALIAN.

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JOS. KAHN, M. D., MILWAUKEE.

### RUSSLAN AND DUTCH.

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### FRENCH.

J. G. KIERNAN, M. D., CHICAGO.

### SPANISH.

HORACE M. BROWN, M. D., MILWAUKEE.

### SWEDISH, DANISH AND NORWEGIAN.

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## NEUROLOGICAL.

## ANATOMY AND PHYSIOLOGY.

Extensive observations made by Dr. Harald Holm at the Neuropathological Laboratory of Christiana in relation to the anatomy and pathology of the dorsal nucleus of the vagal nerve, has led the observer to establish the following important and anatomical facts: (1) The dorsal vagal nucleus stands in direct nervous relation to the fasciculus solitarius. (2) The presence of a hitherto unknown large group of ganglionic cells from which nearly one-half of the vagus fibers originate. (3) The nerve fibers from this group (vagi rafe-fibers) run a course quite similar to that of the genu nervi facialis. (4) The nervus glossopharyngeus, like the trigeminus, has, besides an ascending sensitive root, also a descending motor root.

In view of these results the author considers himself justified in drawing the following physiological conclusions:

1. The centre for the trachio-bronchial reflex is probably located in the dorso-lateral division of the dorsal nucleus of the vagus,—the small ganglionic cells of the nucleus.

2. The respiratory centre consists exclusively of the ventro-medial division of the dorsal nucleus of the vagus,—the large celled group of the nucleus. (*Norsk Mag. for Lagvidenskoben*, No. 1, '92.)

M. N. VOLDING.

THE TENDON REFLEX.—J. Longard, *Deutsche Ztschr. f. Nervenheilkunde*, I, 3 and 4, July, 1891, discusses the effect of febrile affections and psychic influences on the tendon reflex. He tested this reaction in cases of phthisis, typhoid fever, diphtheria, etc., and generally finds in these disorders a heightened condition of these reflexes. Out of eighty-two consumptives who had been long observed and frequently tested, he found marked foot clonus in thirty. In only seven of these were the other reflexes notably heightened, the foot clonus alone showing abnormally. Six of the seven were very much reduced physically, while eight of the

twenty-three with the ankle clonus were in comparatively good general bodily condition. In forty-two patients there was produced, by mechanical irritation, a pronounced ilio-muscular contraction of the pectoralis and biceps muscles. In twenty-five others it also occurred, but to a less degree, and it was absent in thirteen. It was noticeable that this phenomena was most markedly present in febrile cases, and absent or slight in others. In typhoid fever the tendon reflex was increased, and this increase was noticeable in one case nine months after recovery. In the case of a child there was, together with very pronounced periosteal and tendon reflexes, a very decided and persistent maxillary clonus, so that a slight tap on the chin caused very noticeable chattering of the teeth.

In acute rheumatism a very slight increase of the tendon reflex was noted in only one case. In pneumonia, on the other hand, it was the rule, and failed only once in seven cases.

The fact that the heightened foot clonus occurred in so many cases without participation of other reflexes seems to indicate that this symptom depends upon some special cause.

The author holds, that, as in peripheral degeneration of the nerves the reflexes are diminished, so with irritation of these nerves by the abnormal products of infectious diseases they are heightened, and this is a possible explanation of the phenomena. A more probable one, perhaps, is the defect of inhibition from the effect of the poison on the spinal, or higher centre, or from lack of proper nutrition of the same.

As regards the effect of psychic influences, the author has repeatedly had opportunity to observe heightened tendon reflex from mental excitement. He found that this could be observed in certain neurasthenic cases under conditions of hypochondriacal depression, and also it was marked in a number of asylum cases during emotional exacerbations. He concludes as follows:

"These observations are indeed not very numerous, but they prove satisfactorily that the psychic condition may exert a great influence upon the condition of the tendon reflexes. Especially can these reflexes be notably heightened by mental excitation, and to a degree that has heretofore been held could only be due to organic nervous disorder. Obviously, the knowledge of this fact may be, under certain

circumstances, of great practical importance. It cannot be inferred from the temporary appearance of ankle, or even patellar reflex, that degeneration of the pyramidal columns exists, and on the other hand a malingerer, fearing detection, and therefore in an excited and apprehensive condition, may very possibly exhibit an abnormally heightened reflex."

H. M. BANNISTER.

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ON THE STAINING OF MYELIN SHEATHS. — Weigert, *Deutsche Med. Wochensch.*, No. 42, 1891, reviews the history of his well-known stain and its modifications by Golgi, Pal and others. As the result of further experiments he proposes certain modifications, which render differentiation unnecessary in loose sections. The well hardened specimen is mounted in celloidin and fixed in 80% alcohol in the usual manner. It is then floated for twenty-four hours in a culture-oven, in a fluid composed of equal volumes of a cold saturated solution of neutral cupric acetate and a 10% solution of sodio-potassic tartrate (Rochelle salt). Larger pieces, as the pons, may remain for forty-eight hours, the fluid being renewed at the end of twenty-four hours. The same process is then repeated, using a solution of the copper salt only. After rinsing in water, the pieces are immersed in 80% alcohol and cut. The stain consists of two solutions. Solution A consists of 7% of a saturated watery solution of lithium carbonate and 93% of distilled water. Solution B is a 10% alcoholic solution of hæmatoxylin. Nine parts of A and one of B are to be mixed *immediately* before using. An immersion of four to five hours in this is sufficient, although a stay of twenty-four hours does no harm. A simple washing with water is all that is needed before mounting single sections, which must not be thicker than 0.025 ( $\frac{1}{40}$  mm.) After washing, the section is passed successively through 90% alcohol, aniline-oil-xylol (aniline-oil 2, xylol 1, by volume), and mounted in balsam. Thick sections or celloidin series should be overstained and differentiated in  $\frac{1}{2}$ % acetic acid, or by the usual method with borax-ferridcyanide of potassium. (*Deutsche Med. Wochensch.*, No. 42, 1892.)

G. J. KAUMHEIMER.

## PATHOLOGY AND SYMPTOMATOLOGY.

EXOPHTHALMIC GOITRE.—Möbius, in an exhaustive article on this disease, draws the following conclusions: Basedow's disease is probably due to changes in the function of the thyroid gland. To prove this he mentions: (1) The similarity between this disease and others which depend upon changes in the thyroid, namely, myxœdema and cretinism. (2) The fact that in some cases exophthalmic goitre is secondary to simple enlargement of the thyroid. (3) That operative treatment seems in some cases to either benefit or cure the disease.

We know little or nothing about the causes which bring on the primary changes in the thyroid gland. It is probable, however, that the action of some poison on the system is an important etiological factor. Among predisposing causes are the female sex, neurotic inheritance, possibly climatic conditions and national peculiarities. Under favorable circumstances those conditions which diminish the resistance of the body, more especially of the nervous system, seem to act as exciting causes. (*Deutsche Zeitschrift f. Nervenheilkunde*, Nov. 1891.)

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JOS. KAHN.

CHANGES IN THE CEREBELLUM AS THE RESULT OF CEREBRAL HYDROCEPHALUS.—Chiari differentiates three types, which are illustrated by exhaustive clinical histories and pathological descriptions, too long for reproduction. As the first type, he describes a drawing out of the cerebellar tonsils and the median part of the inferior lobes into processes which accompany the medulla into the cervical canal. The second type includes the dislocation of parts of the cerebellum into the dilated fourth ventricle, which is prolonged into the expanded cervical canal. As an instance of the third and severest type he relates a case, supposed to be of hydromyelocele cervicalis, in which the sac and contents were removed. Autopsy showed that almost the entire cerebellum, expanded into a cyst, had been removed. (*Deutsche Med. Wochensch.*, No. 42, 1891.)

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G. J. KAUMHEIMER.

TUMOR OF THE BRAIN WITH AUTOPSY.—By C. S. Bull, M. D. Author was consulted by a gentleman, aged forty-five, on account of a difference in the size of the two pupils

which had existed for nearly a year without any change. Had always been myopic and astigmatic and had worn glasses for twenty-five years. Had contracted syphilis fourteen years before and had numerous constitutional lesions since then, but none of them severe. About two years ago began to have some ill-defined brain, or nerve symptoms, of which he could give no very clear description, but from description furnished author concluded that they were probably attacks of *petit mal*, which were accompanied at times by transient loss of consciousness. There was marked ptosis of the right upper lid and paresis of both internal recti. In left eye the iris was moderately dilated and immovable, the pupils on this side being more than twice the diameter of the right. There were small irregular central opacities in both lenses, with two or three small hemorrhages in the retina near the margins of the disc. Had occasional attacks of vertigo, which increased in intensity, and there appeared a hemianæsthesia on the left side, which gradually became well marked. Later, had a number of well marked convulsions and the lapse of memory became more noticeable. Ten months from the time author first saw him he woke suddenly about two o'clock in the morning with severe pain in occipital region. Became rapidly delirious, and died comatose at 11 a. m. next day. Autopsy showed the dura mater, rather thicker than the average, adherent to the skull. The convolutions were flattened, especially over the anterior lobes. The anterior half of the left hemisphere was larger than that of the right hemisphere. Section through middle of left frontal lobe passed through a tumor two inches in longitudinal diameter, and an inch and three-quarters in a transverse diameter, with a broken down centre. Anterior portion of growth was firmer than brain substance and was grayish-pink in color, with a few hemorrhagic spots. This mass reached to within two inches of the anterior extremity of the hemisphere. The tumor involved the corpus callosum and protruded downward from the roof of the left lateral ventricle. A careful microscopical examination of the tumor proved it to be a gliosarcoma. (*New York Med. Jour.*, Jan. 3, 1892.)

B. M. CAPLES.

SYRINGOMYELIA AND ALLIED DISEASES, by Walter Vought, M. D.—The presence of cavities in the spinal cord has long been known, but only within the last ten years have they

been considered other than pathological curiosities and their relation to certain clinical symptoms shown. Cavities appear in the spinal cord under two different conditions: (1) A hydromyelus, a dilation of the central canal extending the whole length of the cord, and at times into the ventricles of the brain; at times of congenital origin, being the result of embryonic arrest of development. (2) Cavities are found in the spinal cord as a result of the growth, and occasionally of the softening and breaking down of a pathological tissue invading the substance of the cord, and causing the clinical picture of the disease known as syringomyelia. The cord when removed from the spinal column has lost its regular contour; the cervical enlargement, the part earliest and most often affected, is smaller or larger than normal, irregularly circular or flattened in shape, and the parts above and below this portion are similarly altered. The affected part is soft in consistence and may be elastic to the touch. The medulla and pons may be similarly changed. Cross-section of the affected parts shows that it is the gray substance which is primarily and principally involved. Instead of the normal gray matter of the posterior and anterior horns there is, replacing it wholly or in part, new tissue, in whose centre a smaller or larger cavity is visible, the contents of this cavity being fluid, or semi-fluid in consistency. Microscopical examination shows the new tissue to be composed of spindle-shaped and oval cells, associated with filaments arranged in strands between and around numerous blood-vessels, which are surrounded by a close-textured, sparingly nucleated sheath of neuroglia filament. The new cells are glia cells, and granular, rounded, or spindle-shaped, non-branching cells resembling sarcoma cells. When the white matter is involved, ascending and descending degeneration of the different tracts of the cord occur. This condition may spread to the posterior horns and the posterior columns, or into the anterior horns, and even into the lateral columns. He here describes a case: Patient 40 years of age; married; waiter by occupation. Complained of muscular weakness of the right hand and difficulty in walking. Had been well until two years ago when he suffered a short time with severe supra-orbital neuralgia, which yielded to treatment, and had been in good health until the present trouble began fourteen months ago. There is constant dull aching of the whole arm;

numbness gradually extended up the arm to the shoulder, right side of the neck, lower jaw, and downward upon the same side of the thorax. Seven months ago some stiffness and weakness of the right leg; some numbness of the same. About this time the patient noticed a drooping of the right side of the face, and a feeling as if the skin were swollen and tense. Loss of sensation of the fingers of the right hand. Examination showed the thenar and hypothenar muscles were atrophied; also those of the first interphalangeal space. Marked atrophy of the muscles of the forearm, especially those on the ulnar side; slight atrophy of the deltoid of the pectorals, of the supraspinatus and infraspinatus, and right side of trapezius. Slight atrophy of the muscles of the ulnar side of the left hand and of the thenar eminence. Fibrillary twitchings are to be seen in these muscles. Nowhere is there complete loss of faradic contractility, but response is slow and vermicular. The plantar and cremasteric reflexes are normal. Knee-jerks of the right side greater than the left. Slight diminution in tactile sensation over the skin of the whole right arm, on the right side of chest over an area extending as far down as the sixth rib in front, and at the same level on the back. Thermal sensation over the whole arm, right side of chest in front as far as the middle line, and behind over the scapula; loss of appreciation of both heat and cold. Diminution in pain-sense over the whole upper arm, on the upper two-thirds of the radial side of the forearm, the anterior surface of the thorax on the right side as far down as the third rib. Over skin of deltoid muscle complete analgesia. Author thinks it is probable that the morbid process began at the level of the fifth cervical segment involving the cells of the anterior horns of the right side. That the central and intermediate gray matter are involved; also the posterior horns of the cervical enlargement. He thinks the process has extended upwards to the fourth cervical segment of the cord as shown by the sensory disturbance as high as the lower jaw. Beginning at the fifth cervical segment of the cord the process has extended downward, involving the greater part of the gray matter as far as the middle dorsal segment, and the sensory part of the gray matter as far as the middle dorsal segment. The only treatment of service appears to be the administration of gen-

eral tonics, the use of baths and massage. No treatment can be directed towards the disease itself. (*New York Med. Jour.*, Nov. 21, 1891.)

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B. M. CAPLES.

MENINGITIS CEREBROSPINALIS—Dr. Oebeke reports the cases of two brothers who rapidly succumbed to a purulent meningitis. A bacteriological examination of the cerebrospinal fluid showed, in both cases, the presence of chain-cocci, which were cultivated upon agar-agar, but did not grow into a second generation. These cases are published to show that the disease is not a "masked" pneumonia as has been claimed, but is an independent disease. (*Berlin Klin. Wochensch.*, No. 41.)

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G. J. KAUNHEIMER.

NEURITIS AND SPURIOUS ARTHRITIS.—Dr. Maclagan read a paper on three cases of Neuritis affecting the nerves of the arm in which the nerve lesion was followed by changes in the joints of the fingers. It was the nature of these changes to which attention was specially drawn. They were believed to be non-inflammatory in nature, and to consist essentially in contraction and diminution in size of the osseous and ligamentous structures of the joints. These changes were the result of malnutrition of the affected structures, and were produced in the same way as the wasting of the muscles and the glossy state of the skin by which they were accompanied. Mr. Bowlby mentioned a case in which the ulnar and median nerves had been divided and an unsuccessful attempt made to suture them. The limb was afterwards amputated, as it was quite useless. The examination showed changes in the joints similar to those described by Dr. Maclagan. In another case he had noted the same atrophy, shortening of the muscles, and fixity of the joints, due probably to contraction of the muscles and fascia. Sometimes changes in the articular cartilages were found, while in others all the lesion was extra-articular. Adhesions sometimes formed within the joint. In one case he found changes of the nature of ankylosis, partly fibrous, partly osseous. Had seen patient get entirely well from conditions which are considered altogether hopeless. In most cases believed that the changes were such as admitted

of perfect recovery. The treatment in Dr. Maclagan's three cases consisted essentially in forcible movement, the use of electricity to restore the tone of the muscles, and gentle massage. (*Lancet*, October 17th, 1891.)

B. M. CAPLES.

GENERAL ATHETOSIS.—By Dr. Hugh Hagan. Patient, aged four years, was of normal birth and healthy extraction. Was healthy up to nine months of age. Taken ill on Friday and until the following week had continued convulsive attacks marked by high temperature. Fever lasted five weeks. During convalescence the mother noticed "the child moved constantly in all its joints." Author says the child was brought to him two years after first illness. Patient is in a state of constant motion. Movements are marked by that apparent volition and rhythm so different from the jerky, spasmodic character of the choreic. The eyes, though in a more or less constant state of movement, do not present the rapid vibratory character of a true nystagmus, but are more slowly and irregularly drawn up, down, in or out, as a result of the spasms of the internal ocular muscles. The masseters and temporals close the lower jaw so as to lacerate the tongue, which is alternately protruded and retracted. At times marked opisthotonos. Cannot sit or stand unassisted. Totally ataxic aphasic, but, so far as his education will permit, probably not amnesic. The athetoid movements cease entirely during sleep. When at rest the parts assume their normal physiological positions, no evidence of contracture or contraction being present. He thinks that the condition present is due either to a cerebral tumor, or to meningeal adhesions over the motor cortical region, and sees no reason why this condition could not produce the symptoms as well as those generally found. (*New York Med. Jour.*, Jan. 16, 1891.)

B. M. CAPLES.

THE NERVOUS SYSTEM IN ADDISON'S DISEASE.—Recent writers have done much towards the elucidation of the cause of the complexity of symptoms found in this disease. According to Fliener, who writes in the *Medicinischer Anzeiger*, the opinion in Germany is, that the abdominal sympathetic, generally a branch which supplies the suprarenal capsule, is at fault. The work of Tissoni has shown pigmentary in-

filtration, and considerable alteration to exist both in the central nervous system and in the sympathetic system in Addison's disease. The author reported autopsies held in two cases of accidental death occurring in persons with distinct indications of the disease. In one, death had followed an operation for fungus degeneration of the testicle. In this case there was tuberculosis of one suprarenal capsule, with chronic inflammation and thickening of the other. The semilunar ganglion was extremely enlarged. In the second case, the left suprarenal capsule was in a state of metastatic angiosarcoma, as were also bundles of the splanchnic nerves in the same situation. Careful examination showed the whole sympathetic system and the accompanying blood-vessels to be in an inflamed and degenerated condition. This degeneration was especially to be found in the medullary fibers and in the ganglion cells. These pathological changes were also found to have extended to the intervertebral spinal ganglia, the peripheral nerves, the muscular-fiber cells, and the mixed nerves of the skin. The posterior roots and the intercostal nerves were also involved in the degenerative process. The anterior roots and the spinal cord were found in a perfectly normal condition. This observer regards the process in the sympathetic as one of metastasis, as the histories of his two cases revealed previous ganglionic tumors in the neck of which nothing remained but the scars. (*New York Med. Jour.*, October 31st, 1891.)

B. M. CAPLES.

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**POLIOMYELITIS WITH PERINEURITIS.**—This was the subject of a Clinical Lecture by Dr. J. T. Eskridge, delivered at the County Hospital at Denver. The special interest of the case which was the subject of the lecture was, that in certain regions, especially over the upper portions of the great pectoral muscles, around the shoulders, over the arms, over the calf of the legs, and over the gluteal muscles, especially on the right side, there was considerable tenderness on pressure. Most pain was produced by pressure along the course of the nerves, especially the intercostals. The doctor explains this on the theory that they are associated with the poliomyelitis and perineuritis.

TUMOR OF THE BRAIN.—This is a Clinical Lecture delivered by Dr. Eskridge and reprinted from the *Denver Medical Times* for January. The case recited was most interesting being one of right hemiplegia and hemi-anæsthesia. The doctor located the tumor in the left sub-thalamic region.

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HEREDITARY TREMOR.—Debove, *Gaz. des Hop.* 99, 1891. (Abstract by Möbius, in *Schmidt's Jahrb.*) Charcot has lately described a hereditary form of tremor which had been previously mentioned by Fernet. Debove reports the histories of two families thus affected, in one of which it had gone through five generations. His conclusions are as follows: There is a hereditary tremor which may be transmitted in either sex, beginning in childhood and increasing in advancing years. Its rhythm is about eight or nine to the second and it disappears when the muscles are completely at rest. The outstretched hand trembles, but voluntary movements do not increase it. It may involve the limbs, the eyelids, the lips, or the tongue, but the hand is the most affected. The fingers do not have an independent tremor. The author adds that further observations may confirm or modify his views. Prof. Möbius calls attention, in his notice of Debove's article, to the fact, that in his "Diagnostik" he had described a tremor essentialis which agreed in its symptoms and in its hereditary character with the above, but with this difference, that in his cases the tremor first appeared in mature individuals, or in those of advanced age.

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H. M. BANNISTER.

THE ETIOLOGY OF MULTIPLE SCLEROSIS IN CHILDREN.—Multiple sclerosis in children bears some relation to the infectious diseases and in many cases seems to be their direct sequel. P. Marie believes that this disease is caused by changes in the arteries, that there is no direct disease of the central nervous system, but that the vessels simply happen to be affected in this particular region. This explanation seems plausible, but will require the evidence of pathologists to sustain it. Changes in the artery walls of sclerotic areas are certainly found. It is not improbable that in fatal cases of diphtheria or scarlet fever such changes may be found which would, in time, have led to sclerotic changes

in the surrounding tissues. Hence it is desirable that in autopsies on such cases special attention should be directed to the brain and spinal cord. (Nolda. *Archiv f. Psychiatrie und Nervenkrankheiten*, 1891.)

JOS. KAHN.

THE NATURE AND CAUSE OF THE SCLEROSES OF THE SPINAL CORD.—By Chas. L. Dana, M. D. He divides the spinal sclerosis into four classes: (1) The primary degenerations, in which the sclerosis is preceded by a destruction and atrophy of the nerve fibers and cells. (2) The secondary degenerations, in which the sclerosis is preceded by, and due to cutting off of certain nerve-strands from their trophic centres. (3) The inflammatory and reparative sclerosis in which the process is the result of a destruction of nerve-tissue by the inflammation, injury, pressure or obliteration of vessels. (4) The mixed forms. Of these three forms of sclerosis it is the first about which the most obscurity prevails, and it is about these forms that the greatest interest centres. These primary sclerosis are: (1) Locomotor ataxia. (2) Lateral sclerosis (if it exists). (3) The combined sclerosis. (4) Multiple sclerosis. (5) Progressive muscular atrophy and its modified type, amyotrophic lateral sclerosis. As to the nature and cause of the primary sclerosis, as far as the microscope shows, it is gradual decay and death of the nerve fiber and cell. In some fibrous processes like locomotor ataxia, this decay is accompanied by the development of irritating products, leucomaines, or toxalbumins, which may produce so active a change in the connective tissue as to lead to something resembling a secondary, or reactive inflammation. This is never of high grade, however, and in some forms of tabes is very slight. In progressive muscular atrophy the decay and death produced after irritating products is enough, perhaps, to account for the fibrillary twitchings and occasional hypertonic condition of the muscles. He says regarding the secondary degeneration, that no facts of very great or general interest have been brought out in recent years, particularly as to their pathology and etiology. Homèn has brought evidence to show that the process affects, first, the axis cylinder in its whole length; this swells and undergoes granular decomposition. The myelin sheath is affected later. The view that secondary degeneration is due to a cutting off of the fiber from its

trophic cell, is no longer doubted. As to the inflammatory changes that lead to sclerosis, he believes there will be a reconstruction of the views concerning what is now often called chronic myelitis, transverse myelitis, compression myelitis, etc. He thinks that the neurologist can accept some such classification of inflammation as is given by the general pathologist—e. g., that of Senn:—

I. The simple and plastic inflammation.

II. The infective inflammation. He appends here a tabular view of the various sclerosis of the spinal cord, yet assuming that the processes are fibroid and not general:

I. *Primary degenerative sclerosis.* (1) Posterior spinal sclerosis, locomotor ataxia. (2) Lateral sclerosis, spastic paraplegia. (3) The combined sclerosis, Freidreich's ataxia, ataxic paraplegia, irregular forms. (4) Multiple sclerosis. (5) Progressive muscular atrophy and amyotrophic lateral sclerosis.

II. *Secondary degenerative sclerosis.* Of cerebral origin, lateral descending. Of spinal origin, ascending and descending. Of posterior root origin, posterior ascending.

III. *Inflammatory sclerosis*,—so called.

Acute primary myelitis. } Very rare.

Chronic primary myelitis. }

Acute secondary myelitis. }

Chronic secondary myelitis. } The common forms.

Chronic compression myelitis. }

These are mixed processes of softening, inflammation and degeneration. (*New York Med. Jour.*, Jan. 9, 1892.)

B. M. CAPLES.

ACUTE PRIMARY CEREBRAL INFLAMMATION PRODUCING HEMIPLEGIA AND OTHER FORMS OF PARALYSIS.—Dr. J. Sharkley has an article in the *Lancet* of October 31st with the above title. Patient aged thirty-nine. Was admitted to the hospital on August 19th; died September 13th. Had always enjoyed good health; latterly had worked unusually hard; had complained of some twitching in the right hand when writing, and of numbness on the inner side of right cheek; could not taste anything on that side. Suddenly while at work he was seized with a fit, and brought to the hospital, where he had two more in the casualty room. On admission was in an almost completely unconscious condition. Attention could be roused to a slight extent, but he

emitted no sound. Lay on back with legs extended, turning head occasionally from side to side, and slightly moving left arm. Eyes were widely open; right pupil a little larger than the left, neither acting to light. Sensation appeared to be absent, and loss of power was more complete on the right side than on the left. Superficial reflexes absent; patellar normal and equal. Three hours after admission had another convulsion, which began with a loud cry and involved at first both sides of the face, subsequently only the left, together with the right arm and leg. Just after the seizure knee-jerks were markedly exaggerated, ankle-clonus easily elicited on both sides. August 20th: Had three more fits with continued unconsciousness. Head and neck somewhat congested. Eyes slightly turned to the left. Abdominal, cremasteric and epigastric reflexes absent on right, brisk on left. Plantar and patellar reflexes present on both sides, the latter more marked on the right. Jaw fixed. 23d: Incessant twitching of the muscles of the face, forehead, eyebrows, tongue and jaw, of the right platysma and upper lip, and of the angle of the mouth on the left side. 30th: Spoke a few words. Sensation began to return on the right side. Had another fit, lasting three-quarters of an hour, followed by a shorter one. Muscles of the right side of the face and neck were strongly convulsed, and eyes turned to the right. After this, patient was less intelligent than before. Continued unchanged until September 11th when he had a convulsive fit, mainly affecting right side. Died on the 13th. Post-mortem examination:—Brain: No undue vascularity; surface normal. Vessels at the base not degenerated or obstructed. Left hemisphere distinctly larger than right; white matter slightly hyperæmic, yellow and soft. The change from normal was very slight and did not approach in any degree that which is seen in softening from vascular obstruction. Author looked upon the case in life as one in which a severe lesion of the left hemisphere had occurred. So little was found at the post-mortem examination that it was looked upon as a negative one. Upon microscopical examination author found a severe diffuse inflammation of the left hemisphere. The small vessels were dilated, contained an excess of leucocytes, and were surrounded externally by many which had escaped from their exterior. The case was one of diffuse cerebral

inflammation without evident cause, unless the uric acid found in the kidneys can be looked upon as an indication of its being due to lithæmia.

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B. M. CAPLES.

ON ASSOCIATED AND SUBSTITUTE MOVEMENTS IN THE PARALYZED.—Prof. Senator considers this subject in connection with a case. He divides them into three groups. Group (1) includes movements in non-paralyzed muscles, with, or instead of, an intended movement. Group (2) includes movements of similar nature in paralyzed muscles. In group (3) the original movement and its substitute or associated movement are involuntary. The origin of these movements has been variously explained. Transference of reflexes, overflow of normal impulse, increased excitability, loss of inhibitory power, and an insufficient decussation of the pyramidal tracts, have all been invoked to explain these phenomena. The cause may be situated altogether outside of the central nervous organs, as in S.'s case, which is the first of the kind on record. A. R., now 53 years old, received a compound fracture of the skull twelve years ago. A year later he became hemiplegic on the right side with aphasia. The hemiplegia and aphasia improved spontaneously to a considerable degree. After the fracture, he claims to have always experienced pain at the angle of the jaw on the right side and upon swallowing. The tongue deviates strongly to the right. In rest, the arm is lightly flexed and held to the side in pronation, the fingers flexed, the index finger over the flexed thumb. Excitement and irritation bring on choreic movements. Otherwise he presented the usual picture of an old hemiplegic. On protruding the tongue, either actively or passively, whether forcibly or gently, the paralyzed arm becomes flexed, the index finger extended, the others clenched, while the hand is raised to a level with the ear as in a military salute. The same movements were produced by pressure along the painful area at the angle of the jaw and along the anterior edge of the upper third of the sterno-mastoid muscle. Senator believes this to be due to an inflammatory infiltration around the nerves of the cervical plexus extending up to the root of the tongue. The spot is too high up to belong to the brachial plexus. He believes that the movement is reflex and not due to direct irritation. (*Berlin. Klin. Wochensh.*, No. 142, 1892.)

G. J. KAUMHEIMER.

INSULAR SCLEROSIS AND HEMIPLEGIA.—The case of a patient in whom this unusual combination is said to have presented itself is published in the *Journal of Nervous and Mental Diseases*, by Dr. Sinkler of Philadelphia. Patient was a man of sixty-four whose general health had been good. Suffered from small-pox and typhus fever and had a strong family history of phthisis. At the age of ten began to work in a silver-plating shop, and fifteen years after noticed tremor in both hands when he held up a glass. Tremor marked in left hand and ceased entirely when the hand was at rest. It was such as to incapacitate him for all work when fine movement was requisite. In September, 1889, had an attack of left hemiplegia with loss of consciousness. Since this attack, tremor, formerly present on both sides, has entirely ceased on left. On the left side now the condition is that of ordinary hemiplegia, the leg being more affected than the arm, and the knee-jerk on this side more active than on the right. Well-marked coarse tremor of the right hand on exertion; not present during rest. Fine tremor of the tongue; the pupils are unequal, but react normally and there is no nystagmus.

B. M. CAPLES.

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A CASE OF PRESSURE PARALYSIS.—At the age of 22 the patient developed a progressive sepsis following a slight wound of the right hand. To stop its progress the attending physician encircled the shoulder, from the axilla to the middle of the clavicle, with a tightly drawn rubber tube, which was allowed to remain six weeks! Even before it was taken off the arm was useless and has remained so for five years. While the patient is a man of large bony frame, the right arm resembles that of a half-grown boy. The right clavicle is deformed and 2.5 cm. shorter than the left, the scapula being smaller in the same proportion. There is atrophic luxation of the humerus. The length of the entire arm is 7 cm. less than its fellow. Active movements are abolished in shoulder and elbow. Flexion of the wrist is possible to a considerable degree by means of the palmaris longus and flex. carpi rad., flex. carpi uln. being atrophic, being assisted by the flexors of the fingers. Extension slight, by means of extens. indic. proprius and ext. carpi rad. long., all other muscles of the forearm being atrophic. In all the

non-atrophic muscles the electric excitability is normal or only slightly reduced. R. D. can nowhere be demonstrated. At the first examination sensation was normal above the elbow, reduced below, especially as to touch, less as to pain and temperature sense. After several electric examinations sensation became normal. The surface temperature was uniformly  $4^{\circ}$  to  $6^{\circ}$  (C) lower than on the sound arm, which was probably due to a decreased blood supply, as the right pulse was decidedly smaller. (Dr. R. Stern, *Berlin. Klin. Wochensch.*, No. 46, 1891.)

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G. J. KAUMHEIMER.

CROSS PARALYSIS.—Dr. Porter showed a brain before the Sheffield Medico Chirurgical Society, from a patient who had been under his care at the infirmary with cross paralysis. There was a small tumor on the left half of the pons the nature of which had not then been investigated. The patient, a man aged 40, was admitted with right hemiplegia and paralysis of the right side of the face, and internal strabismus of the left eye. There was never any contraction of the pupils. No anæsthesia and no affection of the fifth. The knee-jerks were exaggerated on both sides, but especially so on the right, and ankle-clonus was very marked in the right foot. The speech was slurred and laterally the tongue inclined slightly to the right on protrusion. There was a family history of both cancer and tubercle. No syphilitic history. The diagnosis was lesion of the pons. The patient died comatose seven weeks after admission, or four months from the commencement of the disease. (*Lancet*, June 20th, 1891.)

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B. M. CAPLES.

CASE OF BULBAR PARALYSIS.—Drs. Tooth and Turner reported a case in the last number of *Brain*, of which the following is a Clinical Summary: Onset with "loss of voice" shortly succeeded by hemiplegia, weakness of right side, and later on, difficulty in swallowing. Admitted with paralysis of tongue, lips, palate and vocal cords, weakness and atrophy of right arm and leg, and inability to articulate. Later on, paralysis of right side and paresis of left, paralysis of the neck muscles and muscles of deglutition. Finally, paralysis of diaphragm. No affection of eye muscles and sphincters. Duration about sixteen months. The following is a sum-

mary of microscopical appearances found post-mortem:— (1) Motor cortex apparently normal. (2) White fibers of internal capsules and crura cerebri also normal. (3) Pyramidal tracts of upper and middle pons deeply degenerated showing complete absence of white medullated fibers and some condensation of neuroglia base. (4) Crossed pyramidal tracts both degenerated all the way down the cord, but from the decussation downwards there are some healthy white fibers scattered about in the sclerosed area. The direct pyramid tract is degenerated as far down as cervical iv. (5) Cranial nerve nuclei affected are: (a) Motor nucleus of fifth. (b) Nucleus of seventh extensively, issuing roots attenuated only, but ascending loop deeply degenerated, being quite devoid of medullated nerve fibers. (c) Hypoglossal nucleus extensively, roots much thinned. (6) Cranial and other nerve nuclei not affected by disease are those of the third (fourth not examined), sixth, seventh, ninth, tenth, eleventh, and small-celled nucleus of twelfth. Also nucleus dentatus, nucleus trapezoides, nucleus centralis, nucleus ambiguus, nucleus lateralis, nucleus arcuatus, nucleus funiculi teretis, olivary body, superior olive, nucleus funiculi gracilis, and nucleus cuneatus internus, and externus. (7) Gray matter of cord from cervical i. to lumbar i. shows extreme atrophy with almost complete loss of ganglion cells, in the anterior horns especially, and to a very great extent in the lateral horns also. The issuing anterior root fibers appear rather thin, but the anterior roots outside the cord are normal. (8) The posterior vesicular column is everywhere normal.

Conclusions Summarized.—Our conclusions with regard to the innervation of the facial muscles may be briefly summarized as follows: The facial muscles may be divided into three divisions. (1) The oculo-facial group, frontalis, orbicularis, palpebrarum, and corrugator supercilii. (2) The middle group, elevators and depressors of the angle of the mouth, zygomatics, risorius and buccinators. (3) The oro-facial group, or orbicularis oris. All these muscles are innervated by fibers included in the facial trunk, and are all paralyzed when the *nerve* is affected, as is shown by any ordinary case of Bell's paralysis. When, however, the facial nucleus only is diseased there results paralysis of the middle group only. The upper group is paralyzed when the oculo-motor nucleus is affected, the course of the fibers being probably the posterior

longitudinal bundle. Paralysis of the orbicularis oris is associated with that of the hypoglossal group of muscles, and is therefore presumably innervated by that nucleus. The course of the fibers is at present obscure, but is possibly again the posterior longitudinal bundle. The eleventh nerve, or accessorius vagi, is known to contain motor fibers for the palate and vocal cords. The apparent nucleus of this nerve is indistinguishable from that of the vagus with which it is continuous. Its nerve roots may be regarded as the lowest fibers of the vagus, and its nucleus as the lowest part of the vagus nucleus. Its motor fibers which innervate the palate and larynx are, in all probability, derived from the region of the hypoglossal nucleus.

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SYPHILIS AND GENERAL PARALYSIS.—J. Bonnet, *Thèse de Paris*, 1891, (Abstr. in *Schmidt's Jahrb.*) Out of the eighty-one paretics in the Villejnif asylum, the author found fifty-four who had certainly had former syphilis, eleven who probably had had it, and six who possibly had. Ten cases were apparently non-syphilitic. He hence considers from 66.6 to 80.2% thus affected, and concludes that the more carefully we search for syphilis in paretics the more general we find it. Out of one hundred and four other insane patients there were ten certain, four probable, and three dubious cases of syphilis. Bonnet does not conclude that syphilis is the invariable antecedent of paresis, but calls it the most important cause. As adjunct causes he considers alcohol and heredity the most important.

H. M. BANNISTER.

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LEAD PARALYSIS FROM PAPER HANGING.—Dr. Guyot reports (*Progrès Méd.*, Nov. 28, 1891) the case of a servant girl attacked by lead-paralysis of the four extremities. The source of the lead was undiscoverable. The patient went from her country place to the city home of her master. Here she recovered. On her return she was again attacked by the paralysis, as also was a servant room-mate. Analysis of the paper hangings revealed great quantities of lead. Dr. Labbé, in the discussion of the case, said that lead-paralysis occurred among paper-painters.

J. G. KIERNAN.

THE PATHOLOGY OF GENERAL PARALYSIS.—F. Brazzola, *Archivio Italiano*, XXVIII, Fasc. V, VI, 1891, describes elaborately and minutely a clinical case of general paralysis of the spinal type, giving fully in detail the gross and microscopic findings of the autopsy. The case was one with a strong hereditary tendency to alcoholism, but without other nervous antecedents. There was possibly also some specific heredity and the patient himself was undoubtedly syphilitic. The symptoms were, as stated, largely of spinal origin, though the characteristic paretic cerebral symptoms also were apparent. At the autopsy there were found lesions in nearly all portions of the nervous centres, meningitis and encephalitis, and sclerosis and degeneration of spinal cord, specially in the columns of Goll which were involved throughout their whole extent. The direct cerebellar, the columns of Burdack, the pyramidal columns, and in the lumbar regions nearly all the sections of the cord, were also involved. The peripheral nerves were also altered by a light neuritis, and there was everywhere decided vascular alterations from which the mischief appeared to take its start. These consisted largely in an endarteritis which was probably of specific origin. In his discussion of the case the author dwells especially upon the part which the vascular changes played in the production of the alterations of the nervous system proper, and is inclined to recognize a direct relation between the two. He holds that the arteritis of dementia paralytica is, in very many cases at least, specific, and therefore there is a direct relation between syphilitic infection and paresis. He does not, however, reduce all the etiology to this one cause, but holds that it is the predisposing condition. Other factors are necessary for the development of the disease and he recognizes the importance in this relation of heredity, vicious habits, overwork, etc., that may diminish the resisting power on the part of the nervous system. "Finally", he says, "as I have already done in other memoirs, I wish to insist on the relations which exist between progressive paresis and tabes. Without going into particulars, I hold that these two morbid species have the closest relations etiologically, clinically and anatomico-pathologically. The causes that lead to them are the same; clinically they grade into each other; there are true forms of passage from one to the other (such as the case I have described); in an anatomico-pathological point of view, especial-

ly since the latest works on tabes, the two forms approach each other more and more, and the different morbid syndromes depend solely upon the different localizations of the lesions and their different degrees of intensity."

H. M. BANNISTER.

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RECOVERY FROM LOCOMOTOR ATAXIA.—Dr. Cronyn relates a case of locomotor ataxia in the second stage with cure following an attack of erysipelas of the face and head. The man continued under treatment about a year without benefit, when the attack of erysipelas set in after exposure to cold. He was violently delirious about four days. After recovery from erysipelas it was noticed that he could walk without a cane. There was no ataxia. He remained well and in the hospital for three years; was exhibited to students, and has continued well since returning to work. Would ask to what the cure was due? There had been no history of syphilis, and the treatment had not been anti-syphilitic. He suggested that the erysipelas may have extended down the cord producing congestion, local extra nutrition of the sclerosed lateral column with restoration of function. Diagnosis had been confirmed by several neurologists. (*Med. Record*, Nov. 7, 1891.)

B. M. CAPLES.

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GLYCOSURIA AND LOCOMOTOR ATAXIA.—Guinon and Souques call attention to the fact (*Arch. de Neurologie*, Nov., 1891,) that tabes may have crises in which sugar is found in the urine, and that in the family of ataxics may be found glycosurics. DeWolf points out (*American Lancet*, Vol. VII.) that during the paretic apoplectiform attacks, and after locomotor ataxia gastric crises, glycosuria may occur. Kiernan states (*American Lancet*, March, 1884,) that glycosuria may be present in the urine of paretic dementes after both epileptiform and apoplectiform attacks.

J. G. KIERNAN.

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NECROSIS OF THE MAXILLARY BONES COMPLICATING TABES DORSALIS. Rosin reports a case of posterior sclerosis with trophic changes of the superior maxilla, and reviews the literature of the subject. He finds that necrosis of the maxillary bones is frequently seen in patients suffering from tabes. The mucous membrane covering the gums of the

affected region is always anæsthetic, while sensation is normal in the rest of the mouth. These trophic changes may occur in any stage of the disease, and when present as one of the first symptoms they may be of much diagnostic importance, for if due to actinomycosis, phosphorus poisoning, or other disease of the teeth or bones, they can be easily differentiated. (*Deutsche Zeitschrift f. Nervenheilkunde*, Nov., 1891.)

JOS. KAHN.

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A REPORT OF A SERIES OF TWENTY-ONE CASES OF HEREDITARY ATAXY.—Dr. Sanger Brown, of Chicago, reports this very remarkable series of cases in the *North-American Practitioner* for January. The article is accompanied by histories of the cases, together with diagram illustrating the development of disease during various generations of the family. As Dr. Brown's cases seem to show that the symptoms formerly accepted as distinctive of Friedreich's ataxy are by no means constant, we give the following as a summary of his investigations of this series of cases. "Hereditary ataxy is a disease which may be traced through several, at least four generations, and increasing in extent and intensity as it descends, tending to occur earlier in life, and advance more rapidly. It usually attacks several members of the same family. It occurs most frequently between the ages of sixteen and thirty-five, but it may begin as early as eleven, and as late as forty-five. It shows no marked preference for sex, but it descends through females four times as frequently as through males. Atavism rarely occurs. The influence of an exciting cause can rarely be demonstrated, but in some instances a fall or injury has appeared to determine the onset, and any cause, like child-bearing or lactation, which very much depresses the vital forces, may produce a rapid advance of all the symptoms. There is always considerable inco-ordination of all the voluntary muscles, and a sluggishness of movements which they produce when the disease is well established. This usually is first noticed in the muscles of the legs, but in a few months extends to the arms, face, eyes, head and the organs of speech. Sometimes it occurs first in the upper extremities and sometimes in the organs of speech. The ataxy is often extreme, and the gait devious, the patient deviating several feet on either side of a straight line, indicating the desired course of progression before he loses the power of walking. The ataxy is not

markedly increased by closure of the eyes. The muscular sense is not impaired. Some weakness of the muscles of the legs without atrophy is frequently an advanced symptom, and occasionally there is permanent spastic contraction of the legs. In developed cases there are usually choreiform movements of the head accompanying all voluntary movements. These irregular movements occur in the hands, legs, or head, whenever it is attempted to maintain either of these parts in a fixed position by a voluntary muscular effort. Movement ceases during sleep. The pulse rate may be increased to  $112^{\circ}$  in advanced cases, or may be normal. I am induced to attribute the pulse rate noted by Dr. Bridge to emotional disturbance, as repeated examination of the patients under my care revealed no abnormality. There is usually some degree of static ptosis with over-action of the levator on looking upward. In rare cases there may be temporary diplopia, in the early stages due to weakness of the external rectus. There is no nystagmus of any kind. Atrophy of the optic nerve is a constant and early symptom, and usually progresses slowly with the other symptoms. Rarely it begins earlier in one eye than the other. The response of the iris to light and accommodation is sluggish, and diminishes with the advance of the optic nerve atrophy; when this latter is complete, as may happen in advanced cases, there may be complete internal and external ophthalmoplegia. There is always marked disturbance of articulation, probably due to inco-ordination of the muscles concerned, for weakness cannot be demonstrated. In some cases there is a troublesome tendency to strangulation in swallowing liquids, due to their getting into the larynx, but otherwise, swallowing is in no way difficult. Occasionally the sphincters are slightly, but positively affected, this symptom only appearing in those cases where spontaneous pains in the legs co-existed having some of the characteristics of those occasioned in locomotor ataxy. Excepting the spontaneous pains already mentioned, there is no disturbance of sensibility. There are no vaso-motor or trophic symptoms, but there is a marked tendency to emaciation; there is no hypertrophy or valvular lesions of the heart. The knee-jerk is always exaggerated and quite frequently there is ankle clonus, and the cutaneous reflexes are also always exaggerated, but to a less degree. The exaggeration of the reflexes is an early symptom and they often decline consider-

ably when the disease is far advanced. There is never paretic club-foot nor any other deformity, excepting, rarely, permanent spastic contractions of the legs in advanced cases. None of these cases have ever suffered from rheumatism as far as I can learn. I wish to repeat that the above summary of the symptomatology of hereditary ataxy is only intended to apply to this particular series of cases, and I have only presented it in this way so that it may be the more easily compared with other series. I regret that I am unable to show any sections illustrative of the pathological anatomy of the disease. Of the pathology, it seems pretty evident that the prominent features consist in an extensive degenerative process, at work mainly in the upper motor segment, that is, the cortical cells and the fibers extending from them to the cells in the cord and medulla; and that the tissues concerned have derived a deficient vital endowment from the parent, this deficiency manifesting itself as frequently after, as during the age of development. The optic nerve atrophy, the occasional spontaneous pains, associated with muscular weakness of the bladder and rectum, together with a tendency to emaciation, suggest that the tissues outside of the upper motor segment may be either primarily or secondarily involved. The integrity of the muscular sense, and the peculiar nature, wide extent and extreme degree of the ataxy, together with the state of the reflexes, suggest that the difficulty lies rather in the efferent than in the afferent paths."

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THE HEMIOPIC PUPILLARY REACTION OF WERNICKE.—Wernicke was the first to call attention to a peculiar reaction of the pupil in hemianopsia. If a fine pencil of light is thrown on the sensitive half of the retina, contraction of the pupil promptly results. If it is thrown on the insensitive half, no contraction occurs. Considerable care is required to elicit this symptom. The explanation given by W. is as follows: "The reflex arc between retina and iris is situated in front of the corpora quadrigemina. If the hemianopsia be due to a lesion behind the latter, the reflex arc is intact and the reaction absent. If the lesion be in the optic tract in front of the corp. quadrigemina, the arc is broken and the reaction can be obtained." Leyden records the first autopsy upon a case showing the reaction. A

fusiform area of softening was found in the lenticular nucleus on one side, extending into the crus and involving the optic tract. (*Deutsche Med. Wochensch.*, No. 1, 1892.)

G. J. KAUNHEIMER.

ON NYSTAGMUS IN AFFECTIONS OF THE EAR.—Dr. Michael Cohn has observed four cases of nystagmus occurring during the course of aural diseases. In Case I, of purulent otitis media, the nystagmus was easily produced by the external or internal douche, or even by slight pressure on the tragus of the diseased ear. If a plug of cotton was inserted, pressure on the tragus did not produce the nystagmus, which was horizontal in character and accompanied by vertigo. The purulent discharge soon ceased, but the nystagmus kept on. After electrical treatment it soon disappeared, although the discharge reappeared. In Case II, the nystagmus and vertigo were produced by injection of warm solutions. Vertigo also appeared on hearing music. In Cases III and IV it was caused by the injections of cool solutions. After a discussion of the various theories proposed, the author reaches the conclusion that the attacks are most probably caused by an irritation of the semi-circular canals, rather than by a direct irritation of the brain. (*Berlin Klin. Wochensch.*, No. 43, 1891.)

G. J. KAUNHEIMER.

CONTRACTION OF THE VISUAL FIELD IN PARESO-ANALGESIA.—Morvan, *Gaz. Hebdom.*, XXXVIII, 26, 1891, (Abstract in *Schmidt's Jahrb.*), Dejerine and Tuiant have observed repeated concentric narrowings of the visual field in syringomyelia. In order to test whether this disorder and Morvan's disease agree in this respect, Morvan instituted perimetric measurements in his patients and found a moderate degree of contraction. He does not consider this a hysterical symptom, as there were no symptoms of hysteria whatever in his cases. He maintains, moreover, the independence of pareso-analgesia from syringomyelia and claims, as evidence, the almost invariable severe whitlows and cracks in the hand in the former ailment and their rarity in the latter, also the infrequency of anæsthesia of the body, etc. The distinction between the two, however, will naturally depend upon anatomical evidence. Proust, indeed, has lately found syringomyelia in a case of pareso-analgesia, but the thickening of

the peripheral nerves described by Gombault and Reboul (connected with sclerosis of the columns of Goll) rather indicates that there may be an anatomically distinct Morvan's disease which may not always be distinguishable from syringomyelia during life.

H. M. BANNISTER.

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THE SYMPTOMS OF TETANY.—H. Schlesinger, *Zeitsch. f. Klin. Med.*, XIX, 1891, (Abstr. by Möbius in *Schmidt's Jahrb.*) (1) *Facialis phenomena*. Schlesinger strikes repeatedly with the percussion hammer upon the cheek just in front of the ascending ramus of the jaw, between the cheek bone and the jaw, upon the soft parts, and produces then the drawing together of the lips. This he finds very rarely in sound individuals, but on the other hand, commonly in tubercular, hysterical and nervous patients. It is less frequent in males than females, and commoner in younger than in older individuals, and is rare in children under eight years of age. It is by far the most frequent in tetany. (This is possibly incorrect.) In tetany this phenomena occurs, as in cases of recent facial paralysis, on account of the direct mechanical irritability of the motor nerve. In other cases it should be a tendon reflex. The author himself shows, that in percussion of the tendinous attachments to the cheek-bone in almost any person, the contraction occurs. In case the reflex irritability is increased, as is often the case in tuberculosis, hysteria, etc., a percussion in the neighborhood is sufficient. The conditions are the same in the face as in the knee. (Schlesinger does not mention the above tendon reflexes in his examinations. They are probably also increased. Möbius.) (2) The mechanical hyper-excitability of other motor nerves is almost always observed in tetany. In other conditions it is very rare. The author has only observed it a few times in hysteria, chlorosis, and bulbar-paralysis. (3) The same is the case as regards the irritability of the sensory nerves. (4) Trousseau's symptom (spasm from pressure on nerve trunks) is alone pathognomonic of tetany. The author further describes the incomplete forms of tetany. These may be frequently overlooked and must be sought for. Such are the lighter forms, with either few contractions, or none at all. They may continue for a long time and Trousseau's symptom is always to be found, and

usually also the other above described symptoms. In conclusion, the author gives his experience of tetany in children and of tetanoid conditions.

H. M. BANNISTER.

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CHROSTEK (same references as the above) comes to the following conclusions. In tetany there exists the same exalted irritability of the sensory as of the motor nerves. During the attacks the heightened excitability is noticeable in all the nerves. In certain cases, only, is it present solely in the convulsed limbs, or is only noticeable there. It disappears more quickly than most of the other symptoms and is sometimes not appreciable after the convulsion. It first disappears in the head. On the other hand, the galvanic hyper-excitability of both the sensory and motor nerves continues after the other symptoms have disappeared. The galvanic irritability of the auditory nerve is also often increased. The electrical resistance of the skin is not decreased. The author notes, that, while paræsthesias of various kinds are present, anæsthesia is very rare, and hyperæsthesia of either the skin or sense organs is lacking.

H. M. BANNISTER.

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TWO CASES OF HYSTERIA IN CHILDREN.—Dr. A. Selmer, of Balsfjorden, Norway, records two cases of hysteria in children which came under his observation. The first case was that of a 13-year-old girl of phthisical antecedents, who had overworked herself at school. She presented the characteristic picture, with maniacal attacks at times. She eventually recovered under electrotherapeutic treatment. In the second case, a girl of 10, the disease began under the guise of a febrile state resembling typhoid fever, together with a peculiar apathetic condition. This continued for four weeks. She would then lie in an apathetic state with eyes closed, refuse to answer, and reject nourishment. By careful watching, it was found that she arose of nights and ate plentifully. This was kept up for seven months. (*Norsk. Magazin for Lægevidenskaben*, No. 6, 1891.)

FRANK H. PRITCHARD

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HYSTERICAL SLEEP.—Steiner reports two cases and finds that this condition resembles natural sleep only in its surface manifestations. In physiological sleep the cortical

centres are completely at rest, while in hysterical sleep there is constant activity, as shown by the never-failing contraction of varying groups of muscles. This probably takes the place of the more common hysterical symptoms, hence it is more rational to speak of hysterical sleep attacks, or, as Charcot says, "Attaques de sommeil hystérique." (*Archiv f. Psychiatrie und Nervenkrankheiten*, 1891.)

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JOS. KAHN.

SPONTANEOUS ECCHYMOSES.—Dr. Sawry (*Trib. Med.*, Dec. 31, 1891), reports spontaneous ecchymoses in a hysterical degenerate paranoiac. The general character of these resembled the stigmata of hysterics. There were other trophic changes in the patient; brachial zone and hyperidrosis. Similar ecchymoses have been observed in hysteria by Froidefond. Quelques. Hæmorrhages Neuro-pathiques (*Thèse de Paris*, 1879), Keller (*Revue de Med.*, 1884), Gilles de la Tourette (*Nouv. Icon. de la Salpetriere*, 1890), and Athanassio (*Les Troubles Trophiques, dans l'Hysterie, Thèse de Paris*, 1890), Strauss (*Arch. de Neur.*, 1884), and Faisan (*Thèse de Paris*) have observed similar ecchymoses in spinal cord disorders, Campbell Clark (*Jour. of Ment. Sc.*, 1876), Kiernan (*Jour. of Nerv. and Ment. Diseases*, 1878), Spitzka, *Insanity*, and others have observed similar spontaneous ecchymoses in the insane.

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J. G. KIERNAN.

HYSTERIA IN THE NEW BORN AND CHILDREN LESS THAN TWO YEARS OLD.—Dr. Chaumier (*Progrès Med.*, Dec. 5, 1891) states that hysteria has passed unnoticed until now, as all infantile spasms and convulsive disorders are grouped under eclampsia. Chaumier regards as the progressively best marked childhood hysteric manifestations: Violent and frequently repeated anger spells, with stiffness of the extremities, movements of arms and legs, without loss of consciousness. Then loss of consciousness and complete flaccidity. The major attacks are also encountered; loss of consciousness, rigidity, turning of the eyes, sometimes there are tremblings in the extremities, but rarely decided convulsive movements. These attacks are sometimes so repeated as to be taken for meningitis. Absence of the pharyngeal and ocular reflex has been most frequently determined. These attacks may be mistaken for epilepsy, meningitis, etc.

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J. G. KIERNAN.

FÆCAL VOMITING AND NEUROSES.—Dr. Desnos reports (*La Tribune Med.*, Dec. 3) the case of a youth found unconscious on the highway. He had escaped from a criminal insane hospital. He had epileptiform attacks, but exhibited hysterical stigmata. During several attacks fæcal vomiting occurred. He stated that for two years he had never passed fæces otherwise. The vomitings were fæcal in character and contained no traces of food. They had preserved the mould of intestine. The patient was seen during the attacks. At the time of vomiting he complained of enteralgia and the abdomen became tympanitic. These vomitings had obtained after traumatism producing cicatrization of the anal region. Dr. Labbé had seen an hysteric whose enemata were passed by the mouth. Dr. Legendre said that the duration in the first case was exceptional. He had seen similar cases in hysterics. The pathogeny was antiperistaltic movement from the large intestine to the mouth. Dr. Matthieu called attention to the fact that Charchewski (*Revue de Med.*, 1885) had, several years ago, called attention to a neurosis attended by tympanitic distension of the abdomen and fæcal vomiting.

J. G. KIERNAN.

HYSTERICAL FEVER.—Continued fever may occur in the course of hysteria where neither organic disease nor muscular paroxysm can be regarded as its cause, hence it has been called hysterical continued fever. Two varieties have been described, the mild, with temperature ranging between normal and  $38.5^{\circ}$ , and the severe, with temperature of  $38.5^{\circ}$  and above. The duration varies from two days to several months. The fever has no distinct type. The onset may be sudden and it may end by crisis. Anomalies, such as difference in temperature of the two halves of the body, and high morning with low evening temperature, may occur. The severity of the symptoms may be entirely out of proportion to the degree of temperature. The symptoms present may be those of any of the acute febrile disorders, such as typhoid fever or peritonitis. This combination is purely accidental, hence the classification of the French authors, which is based upon it, is unscientific and unphilosophical. Sudden stoppage of menstruation, physical shock and trauma, have been offered as causes, but, in the majority of cases, none can be discovered. Up to the present time hys-

terical fever has, in the majority of cases, been observed in hystero-epileptics. (Sarbo. *Archiv f. Psychiatrie und Nervenkrankheiten*, 1891.)

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JOS. KAHN.

SPASMUS NUTANS IN CHILDREN.—Professor Schœnberg, of Christiana, describes ten cases of this affection observed in the Polyclinic of that city. The history of the cases, though given in detail, is short. They were all mild cases. The general health was disturbed in none and the spasms are to be regarded as an essential neurosis. No signs of an implication of the central nervous system were to be discovered beyond the concomitant spasm of muscles supplied by adjacent nerves. All the cases fully recovered after a shorter or longer period. Of the children, three were males and seven females. Their ages varied from one month to one year. Eight of them were nurselings, while two were bottle-fed. In four of the cases the spasms were mere backward and forward movements of the head, in four they were rotary, in two there was a combination of the two movements. Two cases presented back and forward movements of the trunk as well. In four there were, together with nodding movements of the head, associate convulsive movements in the region of the oculomotorius; in two, movements of the eye on its vertical axis; in one case strabismus convergens; in another, convulsive movements of the eyelids, and in two, back and forward movements of the tongue. In most of the cases these movements began in the sitting position and ceased while lying; in two cases they were also present while lying. All the ten cases presented more or less pronounced rachitic symptoms. This affection should not be confounded with the similar spasms accompanying cerebral diseases, especially those which are congenital, hydrocephalus, congenital idiotism, and certain forms of chorea where the spasms appear simultaneously or vicariously with other characteristic choreic movements. (*Norsk. Magazin for Lægevidenskaben*, No. 6, 1891.)

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FRANK H. PRITCHARD.

MOTOR APHASIA.—Markowski reviews the literature of lesion of the pons to determine what relation this pathological condition bears to motor aphasia. Excluding all recent apoplexies, tumors, and areas of softening extending beyond the

pons, twenty-seven cases remain. Of eighteen cases of unilateral lesion, ten showed no disturbance of speech. The right side was affected seven times, the left side three times. Of the eight cases with motor aphasia, two are rejected, the one because death took place in six days, the other because the hypoglossal nucleus, being also affected, may have caused the aphasia. Of the six remaining cases, three presented areas of softening in the right half of the pons and three in the left. These cases indicate that motor aphasia may be due to unilateral lesion of the pons, although it certainly is of rarer occurrence than with bilateral lesion. It is possible that there may have been some error in observation in some of the cases and that a slight extension beyond the median line has been overlooked. Bilateral lesion was found nine times, and only once was speech disturbance absent, and in this case the softened area was so situated that the pyramidal tracts escaped. Thus motor aphasia is almost constantly found in bilateral lesion of the pons, while it is present in less than half the cases of unilateral lesion. These facts aid in confirming the author's views that the motor speech tracts are present not only in the left half of the pons, but in the right as well. (*Archiv f. Psychiatrie und Nervenkrankheiten*, 1891.)

JOS. KAHN.

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## THERAPEUTICS.

SULFONAL AND HÆMATOPORPHYRIN IN THE URINE.—Dr. O. Hammersteen, of Upsala, Sweden, has observed four cases where darkish brown-red to dark brown urine was passed by insane female patients. The urine was examined and found to contain hæmatoporphyrin, or some analogous substance, as well as other abnormal coloring substances, which, like hæmatoporphyrin, denote an alteration in the relations of the coloring matter of the blood. In order to isolate hæmatoporphyrin, the urine is precipitated by means of barium acetate, and then with soda and barium acetate. This precipitate includes the hæmatoporphyrin mixed with the other coloring matters. Alcohol and a little sulphuric acid are added to take up the coloring matters. The alcoholic solution is mixed with chloroform and water added; the hæmatoporphyrin then passes over into the chloroform while the other coloring substances are held by the alcoholic

watery solution. The isolated and purified hæmatoporphyrin had, in various cases, different properties. In two cases it crystallized in needles from alcohol, in which it was, with difficulty, soluble. By its difficult solubility in alcohol it differed from Nencki's and Sieber's crystallized hæmatoporphyrin. In both of these cases the hæmatoporphyrin seemed to be pre-formed in the urine. In one case, however, it formed, on addition of alcohol with muriatic acid, and on exposure to the air, into an ammoniacal liquid. Other abnormal coloring substances were found; one, a brown substance which corresponded to Nencki's and Sieber's hecahydra hæmatoporphyrin. All these cases had been treated with sulfonal, yet what relation they bore to that drug is difficult to decide, as the hæmatoporphyrin appeared in the urine when they did not take the hypnotic. (*Upsala Lakäreförenings Forhandlingar*, Bd. 26, S. 259-289, 487-504). Dr. Christian Geill (*Hosp. Tidende*, R. 3, Bd. 9, S. 797 and 821 (*Review of Insanity and Nervous Diseases*, Vol. II. No. 3). A Danish physician observed a dark, blackish-red color of the urine in nine cases of poisoning by sulfonal. In two cases he remarked albuminuria and a few hyalin cylinders. The patients were all women. Dr. A. Jolles, of Vienna (*Wien. Med. Presse*, No. 49, 1891; *Internationale Klinische Rundschau*, Nos. 49 and 50, 1891) examined the urine of four women which presented the reddish-brown coloration of hæmatoporphyrinuria, after using sulfonal in fifteen cases, two grains per diem. Two of the cases ended fatally. He comes to the following conclusions: "(1) The peculiar reddish-brown color of the urine after poisoning by sulfonal, is due to the presence of hæmatoporphyrin. (2) To prove the presence of hæmatoporphyrin in the urine the spectroscope is of the most value, the urine being in a muriatic acid or ammoniacal solution. (3) Salkowski's test is of use clinically. The hæmatoporphyrin is precipitated by means of an alkaline solution of the chloride of barium, the precipitate treated with alcohol acidulated with hydrochloric acid. (4) It is still an open question whether the hæmatoporphyrin circulating in the blood has a deleterious effect. (5) After poisoning by sulfonal, distinct renal cylinders, as well as the presence of albumen, is to be demonstrated. (6) After sulfonal poisoning traces of unaltered sulfonal are to be found in the urine. (7) The greater portion of sulfonal leaves the organism in the form of soluble and uncombined

sulphur acids. (8) Neutral sulphur compounds can not be discovered in the urine." From this he concludes that one must discontinue the use of sulfonal as soon as a trace of hæmatoporphyrin appears in the urine. Prof. Salkowski (*Zeitschrift f. Phys. Chemie*, 1891, p. 286-310) reports the results of his examination of specimens of urine coming from three women who had taken sulfonal and where hæmatoporphyrinuria was noticed.

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FRANK H. PRITCHARD.

SULFONAL, AND POISONING BY SULFONAL.—Dr. Christian Geill warns of the danger of giving sulfonal to patients who cannot be kept continually under observation, and mentions the earlier communications on the pharmacological and therapeutic properties of this drug. He thus gives the results obtained by treating thirty-five patients (29 women and 6 men), with sulfonal at the Danish asylum at Aarhus. In all 1075.5 grams of the hypnotic were used. Its hypnotic action was tried in nineteen patients with partly recent, and partly more chronic psychosis, and its sedative influence in sixteen restless insane. Doses of 2 grams act nearly always as a certain hypnotic, and smaller doses,  $\frac{1}{2}$  gram, three to four times a day, have a pronounced sedative influence; yet there is a great difference in individual susceptibility. Sulfonal seems to have a distinctly cumulative action, and it is due to this that poisoning occurs. The writer has observed nine cases of poisoning which are given in full in the original. The symptoms were those usually observed. In the milder cases there was great somnolence; in the more severe ones, digestive disturbances and paralysis of the lower extremities. In two cases albuminuria with a few hyalin cylinders were remarked. One of these, where 101 grams of sulfonal were taken in 101 days, ended fatally; the necropsy revealed nothing. *In all the cases a very dark (dark-red) color of the urine was noticed.* (*Hospitals-Tidende*, R. 3, Bd. 9.)

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FRANK H. PRITCHARD.

ORGAN LOCALIZATION OF THE BROMIDES.—Féré, (*Gaz. des Hop.*, Dec. 3, 1891,) finds that the bromides are localized in the order named in the brain, liver and spleen. After many years' use the bones and cartilages contain most.

J. G. KIERNAN.

STRONTIUM BROMIDE, Laborde claims (*La Trib. Med.*, Nov. 26, 1891), is much less toxic than the other bromides, and of the same therapeutic value.

J. G. KIERNAN.

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METHYLAL IN THE PSYCHOSES.—Dr. Morvan, dan de Monteyel concludes (*Anna Medico-Psych.* Nov. to Dec., 1891) that methylal is far inferior to chloral as an hypnotic in the psychoses.

J. G. KIERNAN.

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THE THERAPEUTICAL APPLICATION OF PIPERAZINE. — Piperazine (a sample of which was supplied by the manufacturers, the Chemische Fabrik auf Actien [vorm. E. Schering], Berlin), possesses not only the property of dissolving a large proportion (1:2) of uric acid at normal temperature, but forms with excess of uric acid a neutral, readily soluble urate salt. One part of urate of Piperazine will dissolve in 50 parts of water at 17° C. (62.6° F). If we consider that the solubility of urate of lithium at 19° C. (66.2° F.) is stated as 1:368, i. e., that urate of Piperazine is at least seven times more soluble than the urate of litheum, and that furthermore Piperazine is neither caustic nor toxic, the preference must surely be given this product over all other so-called uric-acid solvents. To learn from personal observation what influence Piperazine would exert on human metabolism, in addition to other experiments elsewhere reported, we instituted a series of trials on human subjects. The literature on the therapeutic application of Piperazine is as yet meagre. Our sole information was derived from a circular published by the manufacturers, quoting the results achieved by a French physician who had experimented with a sample on himself, and who reported that after taking Piperazine the total quantity of uric acid was reduced one-third, and that an excess of urea was eliminated. (Drs. W. Ebstein and Charles Sprague in *Berliner Klin. Wochen.*, Nov. 14, 1891.)

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OBSERVATIONS ON THE USE OF PIPERAZINE.—For several months back we have been making trials with Piperazine in our clinic and polyclinic. This base, which is readily soluble in water and strongly alkaline in solution, has the chemical formula  $C_4H_{10}N_2$ , and in constitution is a piperidin

in which the  $\text{CH}_2$  group has been replaced by the  $\text{NH}$ . It is now manufactured on a large scale (by the Chemische Fabrik a. A., vorm. E. Schering, of Berlin), and has been therapeutically employed in various quarters, notably by Ebstein and Sprague, Vogt, Bardet and others. By these observers the remedy was preferably tried in cases of gout, and also on patients in whom it was necessary to dissolve uric acid concretions in the kidneys (gravel and urinary calculus). The application was suggested by the fact that Piperazine experimentally dissolved large quantities of uric acid in test tubes at  $20^\circ \text{C}$ . ( $68^\circ \text{F}$ .); that the urate combination of Piperazine, furthermore, was at least seven times more readily soluble than the hitherto therapeutically pre-eminent carbonate of lithium, and finally that the base, even in the presence of excess of uric acid, produced on acid salt but an easily soluble neutral salt. Ebstein and Sprague furnish a table of results produced on a patient with uric acid diathesis by seven days' treatment, with increasing dosage of 1 to 3 gm. Piperazine. This table gives the impression that the volume of urine was increased thereby; in one case the exhibition of 2 gm. of Piperazine increased the volume from 1250 to 2160, and in another instance even to 2270 ccm. in twenty-four hours, while the sp. gr. was similarly reduced. In addition the acid reaction of the urine was considerably reduced, and in one case became alkaline. The uric acid, which according to Vogt is reduced in proportion with urea, did not show this action. In collaboration with Dr. Kuh I undertook a series of experiments, both of us taking at the same time, without change of regular diet, 2.5 gm. Piperazine one day, 1 gm. the second, and 2 gm. the third day, dissolved in a glass of seltzers water. Within two hours after taking the Piperazine it could be found in the urine. This is proved as follows: To a sample of urine is added concentrated soda solution; this is slightly warmed, and filtered after cooling. The filtered solution is acidified with hydrochloric acid; a solution of potassium-bismuth iodide is added, heated a short time to  $40$  to  $50^\circ \text{C}$ ., cooled quickly, and filtered. The bismuth combination crystallizes under energetic rubbing with a glass rod, and precipitates as a fine red powder consisting of microscopic star-shaped crystals. The urine was tested in separate portions, three taken during the day and three during the night. After administration of the largest dose,

2.5 gm., an inconsiderable increase of urine volume was noted in both persons—in one to 2260, and the other 1970 ccm. in twenty-four hours. The reaction always remained acid, and the specific gravity was not heightened. One gramme doses lowered the volume to a normal amount, 1630 and 1500 ccm., always acid. (Dr. Heubach in *Internat. Centralblatt f. die Physiologie u. Pathologie der Harn- u. Sexualorgane*, from *Notes on New Remedies*.)

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CHLORALISM.—Chloralism has largely waned in the last half decade. The advent of other — though not better in some respects, I am bound to say—hypnotics, has lessened the growth of a toxic disease that ten years ago bade fair to assume large proportions and wreck some of the best in the land. Its victims came mainly from the educated rank of our people—brain workers,—those who by super-zealous devotion to duty, or long and exhausting vigils over mental toil, had banished the “sweet restorer”. Many chloral inebriates were found among the large, and—at that time more than now—enlarging number of morphine habitués who were impelled to its use by the inroads of the poppy along insomnic lines. So, too, among rum-takers, the marvellous power of chloral in wooing the drowsy god after a big debauch, led to its use—with or without medical counsel—that, at times, could only be called reckless, and that again and again brought the long last sleep. Besides the risk of confirmed addiction from the uncareful use of chloral, it has a pernicious power *per se* that is unique, greater than morphine, though the latter is more snareful and more difficult to cure. Regarding this effect along various lines—psychic and somatic—no more complete picture has ever been presented than that by the writer, eleven years ago, in a paper—“Chloral Inebriety”—read before the Medical Society of the County of Kings, April 15th, 1879, (at command of anyone who may desire and will write for a copy), which contains a striking case akin to the one presented in this paper, noting a special effect of chloral and mainly peculiar to that drug. Quoting from that paper,—“I refer to peculiar pains in the limbs, simulating neuralgia or rheumatism; yet unlike the former as they are not limited to the course of

the nerves, and differing from the latter in not being exactly *in* the joints, but rather *girdling* the limbs just above or below them, without pain on pressure, and unaggravated by movement. Their diagnostic import is, that they may be mistaken for the diseases they resemble, and, their origin being unsuspected, prove obstinate to treatment." Similar pains are sometimes noted in chronic chloroform takers. Anstie thought the latter fact afforded some support to the theory that chloral acts by evolving chloroform in the blood. (J. B. Mattism, M. D., *Notes on New Remedies*, Aug., 1891).

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FUNCTIONAL AND NERVOUS DISEASES.—Dr. J. T. Eskridge has an interesting article on some points in the diagnosis and nature of certain functional and organic diseases of the nervous system in the January number of *The Alienist and Neurologist*. He says that for the past three years he has been in the habit of treating certain forms of headache with nitro-muriatic acid and salicylate of sodium. He says: "I am in the habit of giving my patients who suffer from periodic headaches an ounce bottle of muriatic, or nitro-muriatic, acid, and a box containing a number of fifteen-grain powders of sodium salicylate, telling them on the appearance of the first symptoms that usually precede a headache to take two or three drops of the acid, and repeat the dose in an hour's time if any symptoms are still present. In many instances one dose of the acid is sufficient to abort an attack, and in others it has to be repeated two or three times before the patient is relieved. On the evening of the same day, if the stomach is not rebellious, one of the salicylate powders is taken, and one or two more on each of the two succeeding days. This last precaution is to get rid of the accumulated uric acid in the system. If it is found that they succeed in aborting a headache the patient is requested to conform as nearly as possible to the diet which has proved so successful in Dr. Haig's experience on his own person. In addition to this, I insist on regular exercise every day possible in the open air and frequent sponge-bathing of the entire surface of the body, usually, when practicable, a warm sponge bath at bed-time and a cool sponge bath in the morning on rising, each followed by brisk rubbing with a towel."

## SURGERY AND TRAUMATIC NEUROSES.

DOUBLE HEMORRHAGIC SUBDURAL CYST.—Dr. Newton Pitt showed a double hemorrhagic cyst before the Pathological Society of London, which was taken from a man aged forty-six, who had suffered for eighteen months with frontal headaches; at night he occasionally had twitchings on the right side. The twitchings were more frequent two weeks before his death; he then became dull, apathetic and increasingly comatose. At the inspection two thin cysts were found in the frontal region in the subdural space, with walls formed of embryonic vascular connective tissue,  $\frac{1}{4}$  mm. thick, containing on the right, six ounces, and on the left, three ounces of serous fluid with recent blood clots. The dura mater was not inflamed. The cysts were attached to the dura mater, but not firmly, and were not attached to the brain. The inner surface was as smooth as that of normal dura mater. The case was a typical example of those cysts whose hemorrhagic origin was first clearly demonstrated by Mr. Prescott Hewett in 1845. The sources of the hemorrhage in such cases are from the degenerate cerebral veins in the wasted brains of general paralysis; from either the dura mater or the pia arachnoid, when due to injury; and from the pia arachnoid when due to typhus, relapsing fever, and similar conditons producing degeneration of the blood. (*The Lancet*, Nov. 7th, 1891.)

B. N. CAPLES.

MYXO-FIBROMA OF SPINAL MENINGES.—Mr. J. Jackson Clarke showed a specimen of Myxo-fibroma of the spinal meninges before the Pathological Society of London, from a woman, aged 41, in whom three years before death Dr. Broadbent had diagnosed a tumor within the spinal canal, pressing on the right side of the cord, and implicating the root of the twelfth nerve, and had recommended operative treatment. The growth was smooth and encapsuled. It lay within the arachnoid on the right side of the cord, which was compressed and softened. The posterior roots of the eleventh and twelfth dorsal nerves were stretched over the posterior surface of the growth, and, like the anterior roots, the denticular ligament, the pia mater, and the dura mater were so slightly adherent to the capsule of the tumor that they were separated by very slight strokes of a probe.

The only vessels entering the tumor were a small artery and vein, branches of the right posterior spinal vessels coming off just above the point at which the uppermost fasciculus of the posterior root of the eleventh right dorsal nerve left the spinal cord. The tumor was suspended from the pia mater by these vessels like a plum by its stalk. It could have been easily removed in life after the spine and laminae of the eleventh and twelfth dorsal vertebræ had been taken away. The chief symptoms which were detailed allowed of exact localization. (*The Lancet*, Nov. 7, 1891.)

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B. N. CAPLES.

PRESENT ASPECT OF CEREBRAL SURGERY.—Dr. Landon Carter Gray in writing upon this subject in *The Alienist and Neurologist* for January, says that we do not yet know the cortical centre for temperature, pain, touch, and muscle sense. It is not always the case that the lesion is to be found on the opposite side to the paralysis; sometimes it is found on the same side. This is explained by the anatomical fact demonstrated by Flechsig, that in a small proportion of cases there is no decussation. Concerning the special lesions requiring operation, he holds that meningeal hemorrhage associated with fracture should always be operated upon as soon as the general and local diagnosis is made. The writer does not believe in operating in cases of hemorrhage in the region of the basal ganglia. Operations for abscess in the brain have been highly successful, those for hydrocephalous uniformly useless. Tumors in the cortex, if not too large, and not gliomatous, can usually be removed successfully; likewise tumors of the centrum ovale, provided they can be found at the operation; but this latter is a difficult achievement. Concerning epilepsy, he holds that that form associated with cerebral sclerosis, and that due to porencephalus, cannot be benefitted by operation. The doctor very properly criticises the habit of reporting operations for epilepsy before sufficient time has elapsed to demonstrate that a relapse will not occur. He calls attention to the fact that the epileptic habit, originating from whatever cause, tends to continue even after removal of the cause; and also that almost any new remedy will produce temporary improvement. These two facts account for the many so-called "cures" that have been reported after operation, when, if the reporters had waited, the chances are that the relief from the operation would have been shown to be only tem-

porary. He states that he does not know of the cure of a single case of epilepsy by cerebral operation. In closing the doctor says: "To sum up, therefore, I would advise an operation upon the intracranial contents in cases of tumor that in size and location are removable, in cases of fracture and meningeal hemorrhage, in cases of abscess, in cases of epilepsy caused by localizable and removable lesions, and in cases of idiocy in which there has been a history of arrest of development, probably due to ossification of the fontanelles."

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OPERATION FOR COMPRESSION-MYELITIS.—Lichtheim reports two cases of compression of the cord by psammoma, in which the dural sac was opened and the new formation removed. The first case died of septic meningitis in a few days. The second case, in which the tumor was at the level of the fourth dorsal vertebra, recovered. The spinal symptoms, which had existed for over six months, receded, with the exception of slight ataxia and diminished sensation in the right leg, and an anæsthetic zone at the level of the fourth right rib, due to a lesion of a posterior root. (*Deutsche Med. Wochensch.*, No. 51, 1891.)

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G. J. KAUMHEIMER.

CASE OF TUMOR OF NERVE TRUNKS TOGETHER WITH THE AFFECTED PORTION OF THE NERVE.—By Geo. H. Hume, M. D. The author describes the following case: Patient was admitted January 24th, 1888, on account of tumor at the back of the left thigh. Lump had been noticed for five months. Was ovoid in shape and movable from side to side, but not from above downward. Considerable pain below the knee and in the foot. No impairment of motion or loss of sensibility. A few days after admission tumor was removed. The lower border of the gluteus maximus required division in order to get beyond the disease superiorly, and the lower section of the nerve was made at the upper limit of the ham. The growth was found to be surrounded by, and incorporated with, the strands of the nerve. It would have been impossible to enucleate the tumor. Besides the main portion of the tumor, the greatly thickened nerve-trunk above and below seemed to be infiltrated with the same material, so that the removal of about six inches of the nerve was necessitated. In its minute structure the growth was found to consist of fibrous material intermixed with small round cells and

granules. Patient left the hospital and went to work. The foot had the smooth blue aspect of the skin characteristic of nerve lesions. It was sensibly colder than the other and the limb was considerably wasted. Notwithstanding this, and the complete paralysis of all the muscles below the knee, his gait was astonishingly firm. The ability to walk depended entirely on the extensors of the knee which are innervated by the anterior crural. Complete loss of cutaneous sensibility below the knee, except portions of the back of the leg (supplied by the small sciatic), and along the inside of the leg and foot (supplied by the long saphenous nerve). Further history of the case was lost. He reports another case of tumor, the size of a small melon, under the gluteus maximus of the left side. Had been noticed for four months; was growing rapidly. Severe and constant pain down the leg. When the tumor was excised it was found to have originated in the great sciatic nerve, the strands of the nerve being stretched over, and incorporated with the capsule of the tumor. It was necessary to divide the whole thickness of the nerve close to the notch above and at the border of the gluteus below. By dint of stretching and extreme flexion of the knee and extension of the hip, it was possible to bring the divided ends of the upper portion and of one-half of the peripheral part together and suture them with strong cat-gut. Patient lay in bed almost upon his face, with hip fully extended, and the knee fully flexed. Microscopical examination of the tumor proved it to be a round-celled sarcoma. Patient had difficulty in putting foot to the ground, apparently owing to the shortening and tightness of the sciatic nerve. This feeling of tightness gradually diminished; power of walking steadily improved. At the time of his discharge from the hospital there was no return of cutaneous sensibility, and there was complete paralysis of all muscles supplied by the great sciatic. Several months later the condition of the leg had improved rather than deteriorated. There was no increase of atrophy, the difference in the measurement of the two limbs being barely an inch. Patient died several months later. At the necropsy there was found a thoracic tumor which originated in the pleura. Nodules, or small tumors, were found in several of the intercostal nerves, in the liver and the left lung, and in the left humerus. No tumors existed in the brain. (*Lancet*, Sept. 19, 1891.)

CARCINOMA OF THE BRAIN SECONDARY TO THAT OF THE BREAST.—Patient was a female aged 41; two children; no history of cancer in the family. On June 11th, 1887, right breast was amputated for scirrhus, the tumor being the size of a hen's egg and situated in the upper part of the breast. No glands could be felt in the axilla. Subsequently there were several small glands removed. Since leaving the hospital patient has suffered from headache, which has been very severe, more severe during the night; absent during the day; referred to vertex and frontal regions. No vomiting, but complains of weak eyes. Is dull and forgetful. General paralysis with rigidity of arms; paralysis has been very gradual in its onset. Ptosis of left eyelid. Necropsy showed the brain to be of normal size; no tumor to be seen externally. Situated in the posterior of the occipital lobe of the left cerebral hemisphere was a large deposit of carcinoma; it was of a considerably firmer consistence than the normal brain substance, was somewhat granular on section and of a grayish-white color; was nearly two inches in diameter antero-posteriorly and the same vertically, and reached the posterior surface of the brain, where it was adherent to the dura mater. The upper limit reached a little above the level of the roof of the lateral ventricle. Another carcinomatous deposit, an inch in diameter, was situated in this hemisphere above and anterior to the Sylvian fissure at Broca's convolution. The points of interest are, as it will be seen, that the tumor occupied what is known as the visual centre in the occipital lobe. Unfortunately the eyes were never very satisfactorily examined, although several attempts were made, but slight optic neuritis existed on the right side—opposite to that of the tumor. The other tumor was situated at what is known as "speech centre"—viz., the posterior frontal of the third convolution, and adjacent parts of the ascending frontal and left cerebral hemispheres, which will account for the loss of speech. There was partial recovery of speech a few days before death, probably due to the right cerebral hemisphere taking on that function. It is worth noting that loss of speech from disease of the left hemisphere is, as a rule, quickly recovered from in children by the compensatory use of the right hemisphere. This takes place in some adults, but in others not. (*Lancet*, Oct., 1891.)

CEREBRAL ABSCESES OF AURAL ORIGIN.—Dr. Jansen relates several cases of this sort and discusses their general pathological relations and symptomatology. Among 13,000 patients treated at the aural clinic of the Berlin University, brain abscess was found eight times in two and one half years. In one case the ear trouble, as well as the cerebral abscess, was secondary to a bronchietatic suppuration. The mastoid was opened 354 times in the same time. One case of acute cerebral abscess occurred among 2650 cases of acute suppurative otitis, with 149 operations on the mastoid; six chronic abscesses in 2500 chronic suppurations of the ear, with 206 operations upon the mastoid. The abscesses were found in the cerebellum four times (3 r. 1 l.); in the temporal lobe three times (1 r. 2 l.). The cerebellar abscesses were accompanied by sinus-thrombosis three times, those of the temporal lobes once. In the acute case and one of the chronic cases, no direct connection between the abscess and the ear could be demonstrated. In the 149 acute cases in which the mastoid was opened, pachymeningitis extrona suppur. was found 49 times (32 times on the right side); in the 206 chronic cases, 32 times (15 right, 17 left). In the acute cases the suppuration seemed to follow the sinuses; in the chronic it seemed more diffuse. In either case it may be considerable in extent. Several extradural abscesses were observed to perforate the squamous plate of the temporal bone from within, without lesion of the brain substance, but four times with perforative leptomeningitis. In fourteen cases, thrombosis of the transverse sinus was found, usually with sepsis and pyæmia. In all chronic cases the pus was green and very foetid. A limiting membrane was present in all cases. All the abscesses were surrounded by a zone of pultaceous cerebral matter. The cerebellar abscesses were accompanied in each case by labyrinthine disease. The mastoid was uniformly diseased, although it seemed healthy in two, and was sensitive to pressure in three cases only. In the chronic cases the onset of the symptoms was sudden, in all but one, febrile, the course rapid, death occurring in seven, nine, eleven, thirteen, and twenty days. Rupture into the ventricles, or meningitis, could never be demonstrated as a cause of death. Emaciation was marked in four cases. Headache was the first symptom in all, in four cases with vomiting, three times the headache was referred to the diseased side. Vomiting occurred sooner or

later in all cases. Vertigo was complained of in one case of temporal and two of cerebellar abscess. Consciousness was unimpaired in one case of cerebellar abscess only. In two cases of temporal abscess a weakening of the intellect was noticed. Rigidity of the neck was found in the cases of cerebellar abscess, although also observed in numerous cases of extradural abscess. The pulse offers no reliable indications, as it has been observed to be slowed in extradural suppuration, and in only two of the cases here considered was it ever below 60. It usually ran 72 to 100 beats per minute. Percussion-tenderness could not be demonstrated, choked disc was found only once in a case of cerebellar abscess, more marked on the involved side. Focal symptoms were found in three cases of temporal abscess, being motor, sensory and aphasic. The aphasia accompanied both abscesses on the left side. The one on the right side did not cause aphasia. Hemianopsia was detected once. The temporal abscess was diagnosed and operated upon in one patient, who died at home after leaving the hospital prematurely. A probable diagnosis was made in another case of temporal abscess. A cranial complication was diagnosed in two cerebellar cases whose rapid course forestalled operation. In the other three the lesion was unexpectedly found upon autopsy. (*Berlin. Klin. Wochensch.*, No. 49, 1891.)

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G. J. KAUNHEIMER.

ABSCCESS OF LEFT PARIETAL LOBE ENDING IN RECOVERY.—E. F., aet. 5, inserted a pea into the left auditory canal, May 4th. Futile attempts at extraction were made at the time; and the patient lost sight of for some weeks. The foreign body was removed May 26, when a purulent otitis media with a large central perforation was found. This was relieved by treatment. About three weeks later, fever and headache, and at last a clonic spasm set in. The status on June 28th was: slow and irregular pulse, violent left-sided headache, slight spasm of extremities with moderate opisthotonus and slight somnolence. Temperature remained normal, although emaciation proceeded rapidly, the pulse becoming slower and somnolence deeper. On July 20th it became evident that a lethal termination was inevitable without surgical interference, although there were no focal symptoms, as Dr. Baginsky had lost a case presenting similar symptoms some time before, in which autopsy showed an

abscess of the parietal lobe. The field of operation was mapped out as follows: from a line drawn from the inferior margin of the orbit to the occipital protuberance, two lines were projected to the sagittal suture, one from the maxillary articulation, and one from the base of the mastoid process. A line drawn 5 cm. above and parallel to the base line, bounded the field above. After exposing the brain, an incision 2.5 cm. long evacuated about 100 gm. of green pus. The cavity, of the size of a goose egg, did not possess a lining membrane. It was washed out with lysol and tamponed with iodoform gauze. No suture. Healing prompt. The symptoms promptly disappeared, although it was noticed that he repeated a word or short sentence spoken to him up to thirty times in an automatic way. In addition to this case Dr. Gluck, who wrote the surgical part, reports several other cases of cerebral abscess. Two are cases of extradural abscess, with one recovery and one death after operation. He then reports two cases of brain abscess following infection of gunshot wounds observed in the Servian war in 1885; one ending in recovery, one in death. Referring to puncture and drainage in chronic hydrocephalus, Dr. Gluck believes that until we possess means of keeping out germs absolutely and permanently, the justification of the operation is doubtful. (Drs. A. Baginski and Th. Gluck, *Berlin. Klin. Wochenschr.*, Nov. 8, 1891.)

G. J. KAUNHEIMER.

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OPERATION FOR EPILEPTOID ATTACKS.—Dr. P. Söderbaum reports the case of a young man, nineteen years of age, who, when five years old, fell upon his head; the nearer details of the case were not to be learned. In his eighth year he began to suffer from giddiness, which repeated itself more frequently, so that recently he has had daily attacks of unconsciousness which lasted about two minutes. He did not fall, but preserved the position in which he was standing when the fit came on. For one period, about three months, he had typical epileptic attacks. Now and then he had spells of giddiness. A depression was discovered over the left mastoid process, 5.5 cm. in length, of a soft consistency and presenting pulsation isochronous with the heartbeat. November 11th, 1890, an incision was made and this defect exposed, when the cerebral membranes protruded, tense with liquid. They were incised. The pia was found to be

oedematous, yet the brain mass itself was normal. The wound was packed with strips of iodoform gauze and closed. The temperature went up to over 40 C., but fell, and the patient was comparatively easy two days after the operation. The iodoform gauze was removed two days after the operation and the wound healed by first intention without any suppuration. He had some seven attacks during the days following the operation, namely, four in two days and three the last, on the third day. Ice-bags were placed over the wound and the bromide of potash, 6 grams per diem, given internally for eight days, as the development of status epilepticus was feared. January 3d, 1891, he was discharged as cured, as he had had no more attacks during his stay in the hospital. The writer had heard from him eight months later and found him still free from all manifestations. A still later communication informed him that he had had two pronounced epileptic attacks. (*Upsalälakare Föreninzeus Forhandlingar*, Bd. 27, Hft. 1, 1891.)

FRANK H. PRITCHARD.

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MEDICAL AND SURGICAL TREATMENT OF EPILEPSY.—Dr. B. Sachs read a paper with this title before the New York Academy of Medicine. Author said that in the study of the surgical treatment of epilepsy statistics at present were useless. Gave his views of the nature of epilepsy, and then related the result in cases operated upon in which he had taken part as neurologist. He divided the cases into three classes—those due to trauma, those associated with the cerebral palsies of childhood, and idiopathic cases, or those due to unknown cause. He believed there was an anatomical basis for genuine epilepsy and that improved methods would yet enable us to demonstrate its origin in a sclerotic change in the cortex. It might be offered as an objection to this view of the origin of epilepsy that sclerosis had not been determined to exist in cases of traumatic origin, but he thought the fault lay with the investigator. Where opportunity offered, a more careful examination of the cortex should be made in such cases. Where sclerotic changes had already taken place causing epilepsy, Victor Horsely, Keen and others had attempted to excise the centres, with, in some cases, a satisfactory result, in others a disappointing one. Excision of the centre meant loss of function or paralysis in the corresponding muscles; so that while one

might, by his excision, cure the epilepsy, he was very apt to paralyze the parts. In younger persons the function of the excised part ought to be assumed by other parts of the brain. Older persons would have to choose between paralysis or the epilepsy. Traumatic cases called for immediate surgical interference. Even after epilepsy had developed there was still some hope from removing a sensitive scar and lifting depressed bone, for thereby the epilepsy might be inhibited, but relief by no means followed. His own experience covered four cases of traumatic epilepsy. In two, improvement, in two, no improvement. The author here mentioned the value of the faradic current applied to the cortex after trephining in order to determine the exact centres for the group of muscles in which the convulsions started. He then considered cases of Jacksonian, or focal epilepsy, which could be traced to a lesion occurring either in utero or early childhood, usually of the nature of a cerebral hemorrhage, thrombus or embolus, leading to softening and secondary sclerotic change in the cortex. About 75% of children with cerebral paralysis developed epilepsy. He had had three cases of this kind operated upon, the cortex in only one being incised; in that instance incision was made into it, but no excision practiced. Improvement in all. Author thought surgeons might be able to cure a few cases of epilepsy; able to improve many. Thought the neurologist and surgeon should work together to prevent the development of epilepsy if possible. Dr. Dana spoke of the medical treatment of epilepsy. He regarded the larger proportion of the cases of epilepsy as a degenerative disease. Idiopathic epilepsy was symptomatic, not of any special focal lesion, but expressive of a family degenerative tendency. In the idiopathic cases would be found certain physical, physiological and psychical marks by which one could recognize the intensity of this degenerative process. He believed there was only a minority of the epileptics who should be kept upon bromides. He placed importance upon mental occupation, upon hygiene and diet, placing these above medical treatment. If there was a sclerotic change it furnished a basis, he thought, for continuance of the old method of treatment by nitrate of silver and for the present use of arsenic. He also gave some phosphoric acid at intervals between bromide treatment. Hydrate of chloral was a useful adjutant of bromides, and lately he had tried

chloralamid with considerable satisfaction. Bromide of camphor was of well established value in *petit mal*. Had faith in the continued use of the galvanic current to the brain and neck. (*Medical Record*, Nov. 21, 1891.)

B. M. CAPLES.

CASE OF TRAUMATIC EPILEPSY TREATED BY TREPHINING.—By Alexander Mills, M. D. Four and one-half years ago patient was struck on the head with a large stone, from the effects of which he could not return to work for over a week. Six months later again received an injury to his head, being struck with a bottle which cut the scalp to a considerable extent. Was not rendered unconscious. One of the cicatrices is markedly depressed. On admission there was considerable twitching of the facial muscles, retracting the angles of the mouth as if the patient was trying to say "C" distinctly. Great difficulty in protruding tongue which was quickly drawn back. No paralysis of lingual muscles, but the spasmodic action of these caused some indistinctness in articulation. These symptoms came on about a year subsequent to his injury with the bottle. The muscles of the external ears and the occipito-frontalis contract from time to time. All his movements are exaggerated when he is watched and are suspended during sleep. Twitching movements occur at the metacarpo-phalangeal joints; there is occasional flexion or extension of the wrist joints, but never any movements of the elbow or shoulder; when standing, his toes twitch, those of the right foot especially; has dizziness and headache, which sometimes come on with vomiting; twitching of the eye-lids. Operation performed. A V-shaped incision was made over the depression on the left side, a little above and in front of the ear. On exposing the temporal muscle it was seen to be divided into two parts by a dense adherent cicatrix, which condition had simulated a depression of the skull. Trephine was applied with its centre over the cicatrix, and on removing the circle it was found to be normal, although somewhat thicker than usual. The dura mater was punctured with a small trocar and cannula and about an ounce of clear fluid drawn off. The dura did not bulge; it was thickened at one part. The vessels on its surface were then secured with double ligatures and divided, and a crucial incision was made into it. This exposed a bluish translucent cyst wall with a

large vein coursing across it. There was a depression on the surface of the brain which measured about half an inch in every direction, but the brain tissue seemed healthy. The bone was not replaced. Wound dressed with iodoform gauze. After recovery from the effects of the chloroform jerking movements went on as before, affecting his tongue very much and making his articulation indistinct. Patient was difficult to manage. Remained in this condition for several days, being given chloralamid and hyoscine to keep him quiet. In a few days could speak a little better; spasms not so constant. Jerkings were much marked during sleep and also when greatly excited. About a month after the operation patient went home under the care of his brother. Was afterwards admitted to insane hospital, as he was somewhat dangerous and had threatened to kill his brother. He says this case is interesting in view of the fact that, although a distinct pathological lesion was found, and so far as could be, removed, no marked improvement took place in the condition of the patient. He says that it is possible that the pressure of the cyst had damaged the centres over which it was placed beyond the point from which they could recover. (*The Lancet*, Nov. 28, 1891.)

B. M. CAPLES.

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TEMPORARY BLINDNESS IN A CHILD FOLLOWING FRACTURE IN THE OCCIPITAL REGION.—The patient, who was only three years old, and in whom ophthalmic examination was very difficult, had remained unconscious for several days after a severe fall on the head. There was a large hæmatoma, but no sign of depressed fracture, in the left occipital region. There ensued slight weakness in the right arm, nystagmus, and right internal squint, but the important feature in the case was the complete loss of sight, which, in the opinion of all who saw her, was undoubtedly present. Several months elapsed before there was any improvement in this point, and sixteen months after the accident it was by no means certain that vision was restored. The site of the chief injury to the head, and the fact that a linear irregularity could now be felt at the posterior superior angle of the left parietal bone, made it probable that there was originally a fracture running from this place downwards to the base in the occipital bone, and it is surmised that the convolutions in that region were severely bruised, which might have ac-

counted for the blindness. The opportunity for trephining, however, did not arise, and, acknowledging that this view of the case was founded more on conjecture than on established fact, there was certainly, as far as could be made out, no other cause for the loss of sight. The optic discs were invariably normal, and there was no indication of injury in the anterior parts of the cranium, orbits or brain. (*The Lancet*, Nov. 28, 1891.)

B. M. CAPLES.

TRAUMATIC ABSCESS IN THE REGION OF THE LEFT ANGULAR GYRUS WITH RIGHT HEMIANOPSIA AND WORD BLINDNESS.—Dr. Beevor and Mr. Horsley reported a case entitled as above, which was treated by operation. About December, 1890, patient fell down while leading a horse and received a scalp-wound on the left side of the head. Suffered from headache for three weeks after the accident, then became suddenly unconscious, vomited, and had a general convulsion. Three weeks later, his sight began to fail, and vomiting had occurred every day. On March 9, 1891, was admitted to the National Hospital for the Paralyzed and Epileptic, with double optic neuritis and right hemianopsia. Temperature was subnormal ( $97.5^{\circ}$ ). There was a scar about three inches long on the left side of the head, which was tender and adherent to the underlying parts. An abscess was diagnosed, probably in the left angular gyrus. Mr. Horsley operated, disclosing a fracture of the vault and some necrosis corresponding to the adherent scar. On trephining behind this, an abscess was found in the principal part of the angular gyrus and the outer surface of the occipital lobe, and two ounces of pus were removed. After the operation the patient was found to have word-blindness, and on examining the fields the right was found to be contracted on the nasal side to  $20^{\circ}$ , and on the temporal to  $5^{\circ}$ , while in the left eye the nasal was reduced to  $10^{\circ}$ , and on the temporal to  $50^{\circ}$ . The case progressed fairly well, but hernia cerebri developed later, and on May 19 patient died. At the necropsy, the dura mater was found adherent on the left side to the margins of the Sylvian fissure, as far forward as the ascending parietal convolution, to the lower third of the supra-marginal gyrus, the posterior part of the superior, and middle temporo-sphenoidal convolutions, the whole angular gyrus except the upper

fourth, and the anterior part of the occipital lobe. On a horizontal section there was much softening, extending inwards across the hemisphere from the site of the hernia cerebri. (*The Lancet*, Nov. 28, 1891.)

B. M. CAPLES.

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COMPOUND FRACTURE OF THE SKULL AND WOUND OF THE ARM CENTRE.—Dr. L. L. Williams reports the above case. Patient received a blow from a heavy club on the side of the head and was unconscious for a short time after. The compound fracture, with marked depression and extensive comminution, was found in the right parietal bone at the centre of the Rolandic region. The left arm below the elbow was completely paralyzed. Slight motion at shoulder and elbow. Intellect unimpaired; sensation normal. The oval flap was raised and the fracture exposed. Area of depressed bone circular in shape and as large as a silver half-dollar. Thirteen fragments of bone were removed, several of which were imbedded in the brain and were extracted with some difficulty. Inner table of skull comminuted. Laceration of the surface of the brain, three quarters of an inch long, with slight loss of substance. An irregular laceration of the dura was sutured with fine cat-gut. Rubber drain placed in the orifice. Flap then adjusted, sutured with cat-gut, and a sublimate dressing applied. After operation patient complained of various abnormal sensations in the left arm and leg; felt as though his limbs were immersed in hot water, and when pinched had a sensation of pricking above the point pinched. For about ten days patient was inclined to be somnolent with occasional delirium. At times an uncontrollable tremor of the whole body, like a severe rigor, came on. Constant and severe pain referred to back of neck. Temperature never exceeded  $99\frac{6}{10}$  and for several days subnormal. In a few days had hernia cerebri, which increased in size and was followed by paresis of the left leg, and tongue deviates to the left. Hernia shaved off several times to the level of the scalp, after which compression was applied. Tumor rapidly decreased in size and sank below the level of the scalp. Paralysis rapidly improved. About two weeks from this time was suddenly seized with a peculiar sensation of throbbing in the floor of the mouth and it was found to be the seat of violent clonic convulsive movements. Finger inserted between the tongue and teeth

of the lower jaw was firmly grasped on the left, but not on the right side. Spasm was therefore unilateral—a true focal, or “Jacksonian” epilepsy. Dressing taken off and gauze packing removed from the wound. Spasm ceased at once. Three days later had clonic spasms of the left arm and leg, lasting fifteen minutes. Sometime later, motion at the shoulder almost normal. Can flex the fingers, but not completely extend them. All fingers of the left hand partially anæsthetic, but not analgesic. Marked rigidity in the left arm and fore-arm—a spastic condition which becomes more pronounced when voluntary motion is attempted. Fore-arm is flexed and extended slowly and in successive jerks. Cannot flex fore-arm without flexing thumb and finger, but can extend it with the fingers flexed. Can stand but a few minutes on left leg. In walking, toes are turned inward. Knee-jerk and ankle clonus are exaggerated on left side. When discharged there was little rigidity in the muscles of the shoulder, but the muscles of the fore arm had not improved in this respect. The anæsthesia of the fingers and rigidity of the pronator still remain, and author thinks, will, in all probability, be permanent. (*New York Medical Journal*, Jan. 9 to 18, 1892.)

B. M. CAPLES.

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TREATMENT OF COMPRESSED FRACTURE OF THE SKULL.—Dr. Brice Clarke gives details of two cases of compound fracture of the skull, in which the fragments were carefully replaced in situ and became firmly reunited. One of the patients was a plate-layer, who had an extensive fracture of the frontal bone caused by the buffer of an engine. The other was a girl whose parietal bone was fractured by a flower-pot falling from a considerable height upon her skull. In both cases the wounds and the bone fragments were carefully cleansed, and the fragments firmly wedged back into place. In both, union was absolutely firm six months later and remained so up to the present time, more than a year after the accidents, nor was it now possible to detect any signs of fracture in either case. Great stress was laid upon the necessity of wedging the bones firmly back in their exact relative positions so as to insure accurate apposition of the fragments. Mr. A. Lane said that after trephining, if the bone were replaced it would usually unite. W. H. Bennet mentioned a case in which he had replaced a two-

inch trephine circle of bone with perfect success, and this instance was by no means unique. Dr. Clarke in reply said, that, so far as he had been enabled to ascertain, it was not unusual for replaced circles of trephined bone to unite. He said it did not seem to be generally known that if pieces of bone were all put back in their proper places they were very likely to unite. (*The Lancet*, Oct. 17, 1891.)

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B. M. CAPLES.

COMPOUND DEPRESSED FRACTURE OF THE SKULL, WITH VERY EXTENSIVE LACERATION OF THE BRAIN AND HEMORRHAGE FROM THE SUPERIOR LONGITUDINAL SINUS.—By Dr. BenseL. Patient, thirty-eight years of age, was struck on the forehead with a heavy beer glass. Lost consciousness for a few moments only, then recovered sufficiently to walk. Was transferred to hospital. On admission was perfectly conscious, but very nervous and irritable. Pulse slow and full; pupils dilated; skin warm and dry; respiration normal. Extensive sub-conjunctival hemorrhage, so that patient could with difficulty close the eyelids. A wound, two inches long, extended transversely across the middle of the forehead immediately above the supraciliary ridges, with extensive depressed fracture. Patient refused consent to operation until next evening, when sub-conjunctival hemorrhage had become so great that it was impossible for him to close his eyelids over the protruding eyeballs. The depressed portion of bone was found to be almost completely detached from the surrounding bone, and depressed for about half an inch, tearing the meninges very extensively. The removal of the detached bone was followed by a tremendous hemorrhage from the superior longitudinal sinus. Author used the sliding catch of a Langenbeck artery clamp as a lever to control the hemorrhage. There was a laceration of the frontal lobe of the brain on the right an inch and one-half deep, and one on the left nearly half an inch deep. Wound packed lightly with bichloride gauze; dressed and bandaged in the usual way. Patient made an incomplete recovery. (*New York Med. Jour.*, Jan. 16, 1891.)

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B. M. CAPLES.

ECHINOCOCCUS OF SPINAL CANAL, WITH OPERATION. — The above case is reported by W. B. Ransom, M. D. Patient was a married man forty-two years of age; mechanic. Was admitted to the hospital December 31st, 1890, with para-

plegia of a fortnight's duration. Patient said he began to suffer with pain in the back eighteen months before his admission in December. Pain began gradually and increased to such severity that he could not rest at night; it was of two kinds: a constant gnawing and burning pain, and occasional shooting pains, which ran down the legs. No difficulty in walking. Patient had hydrocele of the tunica vaginalis, which had been tapped on several occasions. Shortly before admission there was noticed an ataxic gait and loss of knee-jerks; two weeks before admission was unable to walk, and had difficulty in passing water. No sign of cerebral disease or affection of cranial nerves. There was a slight spinal tenderness at sides of lumbar and four lower dorsal vertebræ. In the area of the ilio-hypogastric and ilio-inguinal nerves there was incomplete anæsthesia; on thighs incomplete anæsthesia in front and behind; on calves sensation is deficient; on right sole sensation is nearly absent; present on left. Motor power normal in arms. No ankle clonus. Slight plantar reflexes, more marked on left. Cremasteric reflexes absent. Operation performed January 15th. Incision made over spinous processes of the vertebræ from the ninth dorsal to the second lumbar. The spinous process of the second lumbar vertebræ was cut off with bone forceps, and a trephine applied to the laminæ. The spinous processes and laminæ of the first lumbar, and eleventh and twelfth dorsal, were cut through and removed. After the removal of the laminæ the dura mater was exposed throughout the length of the wound. The membrane was then incised and between four and five inches of spinal cord and cauda equina exposed, which was of a grayish-blue color and distinctly softened. As nothing could be discovered the wound was closed. Patient died Jan. 15, 5 p. m. At the necropsy, subsequent removal of the next, or tenth dorsal vertebra, at once showed the tumor of which they had been in search. It appeared as a whitish, soft, cheesy-looking mass, about the size and shape of a horse-chestnut, attached by a pedicle to the arch of the tenth dorsal vertebra, and pressing on the dura mater for an inch along its dorsal surface. Microscopical examination proved it to be a caseating hydratid cyst. Spinal cord was much flattened, and almost fluid for half an inch at the point of pressure, and it was extremely soft below down to its end. Softened somewhat above the tumor for an inch. The case is of interest in regard to the diagnosis of the level

of a tumor pressing on the cord, and shows how it may be higher than the anæsthesia or paralysis would suggest. The author says that hydatis of the spinal canal are usually extradural and multiple, but their presence cannot be diagnosed from benign growths, such as fibro-myoma and lipoma, unless other cysts are found elsewhere in the body. The fact that they are usually multiple renders them less amenable to surgical interference, but the present case shows clearly that the treatment might in some cases be of very good use. (*The British Medical Journal*.)

B. M. CAPLES.

LAMINECTOMY FOR SPINAL COMPRESSION.—Mr. Lane read brief notes of eleven cases of laminectomy, which he had performed for compression paraplegia resulting from spinal caries, before the Royal Medical Chirurgical Association. He pointed out: (1) That in every case, with one exception where the granulation material had not yet broken down, the cord was compressed by an abscess. (2) That in none of these cases was there observed any such fibrous neoplasm involving the posterior surface of the dura mater as was described by that distinguished pioneer of spinal surgery, Dr. Macewen, showing that that condition must be of infrequent occurrence. (3) That the condition found at the operation appeared in every case to preclude the possibility of recovery of the spinal column and cord without surgical interference. (4) That several of these cases would of a certainty have died from chest or bladder complications from which they were suffering, and which only disappeared when they recovered power over their intercostal and abdominal muscles. (5) That, though several of the patients were dangerously ill, they bore the operation very well. (6) That in the only case in which death was consequent upon the operation, the child was extremely feeble. (7) That in only one case was the subsequent formation of tuberculosis material so rapid as to obliterate very quickly the benefit derived from the two operations. (8) That apart from the presence of the symptoms resulting from pressure on the cord, the very large amount of disease present in every case but one, and size and extent of the abscess cavities, render it impossible for the bodies to ankylose and the spinal column to become useless without operative interference. (9) That in most of these cases the cord was compressed about the level of the

fifth or sixth dorsal vertebra. In the face of these facts, author thought he was quite justified in urging that every case of paraplegia due to spinal caries should be operated upon with as little delay as possible. He considered that the treatment by prolonged recumbency was bad, both in principle and practice. Operation involved slight risk; followed by very little pain; relieved the patient of the compression symptoms, enabled the surgeon to treat the diseased vertebræ directly, by spooning irrigation, removal of all carious material and diseased bone, and repeated application of iodoform, from which he believed he had obtained the greatest benefit. (*British Medical Journal*, Oct. 31, 1891.)

B. M. CAPLES.

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THE VARIOUS SURGICAL PROCEDURES DEVISED FOR THE RELIEF OR CURE OF TRIGEMINAL NEURALGIA (TIC DOULOUREUX). Victor Horsley says neuralgia is a term of somewhat vague import, merely implying the existence of pain as a result of some morbid condition of the nerves. The nerve affected in this case is the fifth, or trigeminal. Pain may be situated in any part of its region of distribution, and may depend upon an affection of any branch of one of its three main divisions; pain is peculiar in several respects. It is intense and paroxysmal with frequent intervals of freedom which may extend over days or hours, or may be limited to only a few seconds. It is often confined to a particular branch of one of the divisions, and may extend to all three divisions of the nerve. The tender spots, or foci, were first pointed out by Valleix and are as follows: The supraorbital notch, the junction of the nasal bone and cartilage where the nasal nerve emerges, and the inner angle of the orbit where the trochlear branch becomes superficial. Other points, which are less frequently the seats of pain, are the upper eyelid and the eyeball itself. In the second division the most common foci are the infraorbital foramen and the malar foramen in the malar bone. In the third division the inferior dental nerve and the lingual are the most common seats of severe pain, sometimes experienced in the auriculo-temporal region just in front of the ear, and rarely in the lower lip. The author recommends the treatment by drugs being thoroughly tried. Probably the best results are got from quinine, especially in combination with arsenic, and from gelsemium: antipyrin is also

useful in some of the slighter cases. Opium can only be regarded as a palliative. Chloride of ammonium is sometimes efficacious, and aconitin is recommended by Dr. Seguin. Counter-irritation in the form of blisters over the point of emergence of the nerve, or along its course, are also useful, and not infrequently give great relief. Chloride of methyl may be mentioned, but its efficacy, he thinks, in this condition would be slight. Galvanism is good in some cases. The operative procedures are of four different kinds, namely, nerve-stretching, nerve-division, or neurotomy, the excision of part of the nerve, or neurectomy, and nerve-avulsion. Another way in which a part of the nerve is occasionally destroyed, is by thrusting into the foramen of exit a red-hot wire, but there is reason to suppose that it will never come into general use. He proceeds to consider in detail the different branches of the fifth nerve; to describe the operations themselves, and the various modifications which they have from time to time undergone, and the results which may be hoped for from them. (*British Med. Jour.*, Nov. 28, 1891.)

B. M. CAPLES.

THE REMOTE RESULTS OF REMOVAL OF THE TUBES AND OVARIES.—Dr. Wharton Sinkler has an article in the *University Med. Magazine* upon the above subject. He concludes with the following: That the remote effects of removal of the ovaries and tubes upon the general health are, as a rule, to improve nutrition and to better the strength, especially if the operation has been done for diseased ovaries or pus tubes. That excessive gain of flesh is rare, and that change of voice, growth of hair upon the face, and loss of feminine characteristics do not occur. That the sexual appetite in women is seldom changed by castration within two or three years after the operation, but after several years it becomes lessened. That it is often the case that after this operation patients are more nervous than formerly, and mental disturbances of various forms, insanity and epilepsy, not infrequently follow it. That the influence of the operation is sometimes good upon insanity and epilepsy which are associated with severe dysmenorrhœa, or occur periodically at the menstrual epochs; but when the insanity is constant, although it may be aggravated at the monthly periods, removal of the appendages is of no benefit. Hystero-epilepsy is seldom permanently cured by the operation. Prolonged

after-treatment is generally necessary to relieve such cases. Local pain is often not relieved by the operation. Certain cases of neurasthenia which are associated with dysmenorrhœa, or with structural changes of the ovaries, are cured by the operation; nevertheless, no such case should be subjected to the operation without beforehand having the benefit of prolonged and patient treatment. It is unjustifiable to remove the ovaries and tubes in cases of neurasthenia, hysteria, etc., when these organs are healthy. Many prominent gynecologists, including Goodell, Kelly, Price, and others, say that now they seldom remove the appendages for nervous diseases, if the organs are sound and healthy.

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## PSYCHOLOGICAL.

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### PATHOLOGY AND SYMPTOMATOLOGY.

IS GENIUS A NEUROSIS?—Dr. J. G. Kiernan contributes a very valuable article on this subject to the *Alienist and Neurologist* of January. An abstract, however, would do it scant justice. The article is partly a review of the works of Nisbet and Lombroso. We extract the following: "Genius, it is true, very frequently leaves no posterity. The influence of the acquired 'occupation disease' comes into play. Burns' genius led to dinner invitations, whence alcoholism. His sexual excesses were due to the fact that hysterically sentimental females are attracted by the glare of genius like birds by a lighthouse lantern. From this spring sexual excess and abnormal marriages. The tendency to regard genius as irresponsible, based on the morbidity theory, of course increases these factors of 'occupation disease'. Shakspeare's business success in the sixteenth century was fully equaled by that of Stedman, Boker, Rogers, Sir John Lubbock and the other banker scientists who failed to yield to the 'occupation disease'. The influence of the 'occupation disease' is traceable in the careers of Marlowe, Ford, Massinger, Ben Johnson, Beaumont and Fletcher, who had to appeal to patrons for support in lieu of the general public, and acquired thereby, as later did Burns, debauched habits. As literature becomes a recognized calling, 'occupation diseases' of this origin cease to occur, but others have taken their place. The

data of Savage demonstrate an opposite explanation of the association of genius and insanity from that of the morbidity theorists, and justify the explanation which I gave five years ago, that 'Genius is not a product of morbid mind. In the exceptional instances where the two co-exist, the genius is evidently of a healthy, conservative element, struggling with the incubus of disease.' One-sided geniuses are atavistic returns toward soundness. The nearer the genius to soundness, the more productive and the less the want of balance. Genius, like other products of a complicated nervous system, is more easily upset as to its delicate workings than a less advanced in evolution. Shock is exceptional among savages, lunatics, criminals and philistines. As the race rises the tendency to shock increases. The same is true of pain. Herein lies the explanation of the frequency of acquired disorders among geniuses, and their morbidity."

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MYELIN NERVE FIBERS IN DEMENTIA.—Dr. Targowla concludes (*Jour. de Med. de Paris*, Oct. 25th, 1891) that in all layers of the gray substance, myelin nerve fibers exist in a transverse direction, whose exact topography has not been pointed out. These disappear more or less completely in all dementias, whether paretic or not. The anterior cerebral lobes are most affected. The relations of this lesion to those of the vessels, nerve cells, neuroglia and meninges, has not been determined.

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J. G. KIERNAN.

BODILY DISEASE AND SENILITY AS CAUSES OF INSANITY.—Dr. P. M. Wise says, according to a collection of cases on insanity made by Dr. Major, bodily diseases act secondarily in creating the psychosis through defect in blood supply, excessive nerve energy through peripheral irritation, extension of disease from lower to higher centres, etc. Post-febrile insanities contributed a small portion of cases of insanity, smaller than formerly. The pathological process which left the brain disordered after fevers, or acute inflammatory processes, was unquestionably vascular, primarily; secondarily, there was inability to throw off degraded tissue and renew the element. The relation of phthisis to insanity was not well defined. The conditions of hospital life tended to

develop phthisis; less so at present, however, than in the past, when hygiene received less attention. Phthisical insanity was characterized by delusions of suspicion. Heart disease was not uncommonly a direct physical cause of insanity, independently of other predisposing conditions. The anæmia resulting from the aortic stenosis, and the congestion or œdema following mitral disease, were explanatory of not a few cases. Arterial capillary fibrosis, or endarteritis, was frequent in the insane when admitted to hospital. The manifestations of insanity in these cases appeared to indicate a lower nutritive condition, and could not well be confounded with the uræmic insanity of Bright's disease, which, in his experience, was seldom met with in hospital insane. Insanity occasionally followed an attack of nephritis; rheumatism may be the sole cause. Gout also might produce a mental state bordering on insanity. But of bodily disease syphilis exerted the largest influence in the production of insanity. Myxœdema, sunstroke and other conditions were mentioned. The popular belief that diseases of the sexual organs bore a common and close relation to insanity was not thought to be well-founded. The connection, when it existed, was often only incidental. There was, he said, no uterine psychology. He had not yet seen a recovery from insanity which was even remotely due to gynæcological treatment. It was seldom where insanity had followed childbirth that there was not an heredity or acquired tendency. Extension of disease from the cord to the brain producing insanity, constituted a small ratio, yet in hospitals one met with many cases of disease of the cord in cases of insanity. It was not infrequent for general paresis to follow tabes, and in such cases there was probably a like cause. Epilepsy, chorea, catalepsy, etc., often had insanity supervene. Epilepsy was a cause in about eight per cent of hospital cases. Loss of speech sense might be followed by insanity. Author thought it might be said that generally the psychology of bodily diseases had been a neglected subject. Speaking of senile insanity, while the disease did occur at times in the aged, yet, as a rule, the mental changes were not so great but what they could be accounted for by the retrograde process which took place in the aged. Thought it a tendency to blotting out of the faculties. (*Med. Record*, Nov. 7, 1891.)

HEREDITY AND ENVIRONMENT AS A CAUSATION OF INSANITY.—Dr. Andrews read a paper before the New York Medical Association, on this subject. Author says he would not, as some did, deny the force of heredity, yet it was proper to question the extent of its influence. That there was an heredity of physical characteristics, was patent to the most superficial observer, but the force of heredity in mental peculiarities, he said, was not so strong. The drift of thought to-day was, that not the disease, but want of resisting power was transmitted. To give heredity as the efficient cause would be to ignore in a given case all the diseases and debilitating influences with which life might be surrounded. Statistics had been advanced in argument, but they varied and were more or less unreliable. It was generally believed that 25 to 30 % of cases of insanity showed some form of it in the ancestry. But heredity alone did not produce insanity. There must be some exciting cause, as impairment of the general health, physical or mental overwork, sexual and other excesses, etc. In early life the parent should look to the environment of the child in whom there might be a supposed tendency to insanity, later, the individual must become responsible. Considering the manner in which many people live, eating and drinking wrongly, undergoing extreme exposure, etc., the wonder was that more did not become insane. (*Medical Record*, Nov. 7th, 1891).

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B. M. CAPLES.

ACETONURIA IN THE INSANE.—Dr. Boeck concludes (*Bull. de la Société de Med. Ment. de Belgique*, Sept., 1891) that properly to recognize acetone the urine must be carefully collected and preserved in bottles exactly filled, or, preferably, distilled immediately. Lieben's iodoformized reaction is best suited to determine acetone. Gunning's reaction is also of value. Where these reactions avail, others are useless. Iron perchloride has no value as an acetone reactive. It determines the presence of diacetic acid. A physiological acetonuria exists which depends on the nitrogen richness of alimentation, hence a slight acetonuria has no pathological significance. Acetonuria has no special relation to the emotional or psychic state of the patient. The amount of acetone is increased in inanition. Increasing acetonuria in food-refusal cases indicates forced feeding.

J. G. KIERNAN.

TOBACCO, INSANITY AND NERVOUSNESS.—Dr. L. Bremer, late physician to the St. Vincent's Institution for the Insane, of St. Louis, Mo., holds that the use of tobacco in the young is productive of mental and moral deterioration, and he believes in older persons the use of tobacco produces brain disease and insanity. He states that French medical observers are of the opinion that one of the factors causing the depopulation of France is the excessive use of tobacco. He believes that tobacco clouds the intellect of the young and old, and, as an instance, states that the obscure and unintelligible style of the philosopher Kant was due to his excessive use of tobacco. The doctor states that he knows of schools for the young, conducted by the clergy, in which the use of tobacco is encouraged, and cites an instance of a physician who rewarded his thirteen-year old son with extra strong cigars when he obtained high credit marks at school. The editor of the *Review* commends this pamphlet to parents and teachers, as it is timely and truthful. The use of tobacco is a great curse, hardly second to that of alcoholic liquors, and physicians, above all others, should discourage the habit and set an example of abstinence. We believe that many a nervous and idiotic child is the result of this habit in parents. The effects of tobacco are insidious and obscure, but they are none the less serious and certain. The pity of it is, that men who will indulge in such a habit as chewing or smoking cannot easily be impressed by the argument that it may injure their own health, and the constitution of their offspring.

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URINE TOXICITY IN THE INSANE.—Drs. Mairet and Bosc (*Jour. des Societes Scient.*, Nov. 11, 1891) state that in quiet mania urinary toxicity is the same as in the sane. In agitated mania the degree of toxicity is greater. In stuporous insanity the toxicity is less than in normal urine. In melancholia with stupor the urine was much more toxic and had toxic peculiarities. In melancholia the toxicity was increased in proportion as the anxiety was increased. The urine had the same toxic qualities so far as regards myosis, micturition, the alimentary canal and the circulation, but differed in the following particulars: Variations in temperature were produced. Hypothermy was first produced followed by hyperthermy, which was followed by a fall in

temperature; sensibility abolition; diminution of reflexes; psychomotor disturbances, abulia, inquietude, depression, anxiety, and auditory hyperæsthesia. In persecutory delusional cases toxicity is slightly greater than in normal urine. In senile insanity toxicity is less than in the urine of sanity. The urines of the insane may be grouped into two classes. (1) Those whose toxicity is not greater than the normal (senile insanity, calm period of certain psychoses). (2) Those whose toxicity is greater than normal. These last may be divided into two sub-groups: (A) Those in which the toxicity is more or less due to the agitation or depression of the psychosis. (B) Those in which urinary toxicity persists independently of agitation or depression (melancholia with stupor, and certain manias). The toxic qualities of the urine of the insane are similar to those of normal urine so far as the alimentary canal, respiration, circulation, micturition, temperature, and even the nervous system are concerned. They may, however, so far as the nervous system is concerned, be divided into two groups. (1) Those in which symptoms due to normal urine are exaggerated. (2) Those in which symptoms not produced by normal urine result. The first group includes certain cases of mania, and stuporous insanity. The second, certain cases of mania, melancholia with stupor, and melancholia. In cases where pathological urine merely reproduces the toxic tableau of normal urine, the degree of toxicity is due to an intensity more or less considerable of the disease, to agitation in mania, and depression in stupor when pathological urine gives rise to new toxic symptoms. These are due to the disorder itself. From this it results that by the side of psychoses produced by neurotic causes must be placed psychoses produced by disordered nutrition.

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J. G. KIERNAN.

PUNS AS A PERSECUTORY DELUSION.—Dr. Séglas (*La Tribune Med.*, Nov. 5, 1891) reports the case of a persecutory delusional lunatic female, who could only recover her tranquillity after she had punned. It was a torture imposed upon her by her invisible persecutors, and the sole way of ridding herself from them was to pun.

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J. G. KIERNAN.

POST-ECLAMPTIC AMNESIA.—Bidon (*Arch. de Med.*, Nov. 1891) discussed post-eclamptic amnesia, a mental state to

which attention has been called by Forbes, Winslow and other alienists, and whose rationale has been pointed out by Dr. Harriet C. B. Alexander (*Alienist and Neurologist*, 1887). Puerperal eclampsia ordinarily produces some mental obtuseness. Where the convulsions frequently recur, intense mental confusion results. Consciousness may be regained little by little, but there is generally slight amnesia. This may affect words, dates and figures. It may be word-blindness or word-deafness. There is sometimes amnesia of the entire lying-in; sometimes of both it and the precedent period. A case reported by Bidon was that of a twenty-nine-year-old daughter of an hysteric. The patient had never displayed any evidences of neurosis or psychosis. She eloped with, and married a watchmaker who proved to be unfaithful and dissipated her fortune. Eleven months after her marriage she was delivered of a child and became eclamptic. On recovery therefrom, she was found to have no recollection of her elopement, marriage, pregnancy or her delivery. None of those persons with whom she had come into contact since her marriage were remembered. The whole period was a blank and has been entirely lost from her life.

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J. G. KIERNAN.

COLORED GUSTATION.—Dr. P. Sollier reports (*Jour. des Sociétés Scient.* Nov. 25, 1891) the case of a forty-six-year-old syphilitic neurasthenic who had long had colored audition, and who developed colored gustation after an acute attack of hypochondria. Colored audition occurred only upon high-keyed sounds. The patient designated the voices of various prima donnas as red, scarlet, azure, pale-blue, sea-green, etc. The eructations from his hypochondria produced the colored gustation. Certain eructations were accompanied by greenish hues and a "cadaveric" taste, others by violet and greenish hues.

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J. G. KIERNAN.

DELUSIONS OF GRANDEUR, AND PERSECUTORY DELUSIONAL LUNATICS.—Dr. J. Christian concludes (*Arch. de Neur.*, Nov., 1891) that grandiose delusions may be predominant over the persecutory delusions, thus constituting a true megalomania. Often they are merely incidental to the psychosis. Sometimes they amount simply to an extreme pride or self-satisfaction. Many persons afflicted with persecutory delusions

do not have grandiose delusions, and are incapable of having them. Christian, who is one of the great French philistines, ignores the fact that the persecutory delusions of the melancholiac, paretic dement, alcoholic lunatic, secondary dement, and those of the paranoiac, are psychologically different.

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J. G. KIERNAN.

NARCOLEPSY IN THE INSANE.—Dr. Szczypiorski reports (*Ann. Medico-Psych.*, Nov. and Dec., 1891) the case of an hereditarily degenerate lunatic, with alternate periods of excitement and depression and para-lucid intervals (when persecutory fancies and exaggerated scruples were present), who had several attacks of narcolepsy. These varied from four to thirty-five days in duration. Of the one-hundred-and-twenty days he was under care, eighty-seven were consumed in these slumbers.

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J. G. KIERNAN.

PERIODICAL EPILEPTIC INSANITY SIMULATING PARETIC DEMENTIA. — Dr. L. Daguillon reports (*La Tribune Med.*, Nov. 26, 1891) the case of an epileptic, of neuropathic heredity, in whom recurrent epileptic attacks were accompanied with emotional exaltation delusions and physical symptoms (tremulous tongue, hesitant speech and pupillary inequality) simulating those of paretic dementia. These disappeared and the patient became mentally clear. Magan and de Monteyel had diagnosed the case at the outset, epileptic insanity. Later, Dagonet fils, and de Monteyel diagnosed it paretic dementia. Kiernan has pointed out (*Amer. Lancet*, Vol. VIII) that epileptic females sometimes become paretic at the menopause. Foville says that the resemblance between circular insanity (*Brain*, Oct., 1882) and paretic dementia may be very great, both as regards the mental and bodily symptoms. Indeed Voisin and Luy describe a circular type of paretic dementia. The case of Dr. Daguillon had many degeneration stigmata, and placed himself in an insane-hospital.

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J. G. KIERNAN.

EPILEPTIC INSANITY.—Wildermuth (*Wurtemb. Med. Corr.-Bl.*, 1890) divides the acute intercurrent psychoses of the epileptic into those attended by alterations of consciousness

and those not so attended. The first can be subdivided into ; (1), severe epileptic sopor, usually following severe typical attacks and showing two forms, (a) confusion, and (b) protracted stupor ; and (2) lively hallucinatory conditions. All these psychoses with disturbed consciousness are most frequent after typical attacks, more rare as psychical equivalents, and still more so as pre-epileptic phenomena. Pure psychical equivalents are extremely rare. The psychoses without disturbed consciousness are more common, and can be divided, according to W., into four forms: (1) The psychical behavior shows a uniform alteration, with no pre- or post-epileptic changes. (2) The mental alteration is different before and after the attack, the type being constant in each patient. (3) No pre-epileptic disturbance, but a post-epileptic alteration, most frequently in the form of a querulous mania. (4) As in the first division, these forms may appear as equivalents of the spasm. (*Deutsche Med. Wochensch.*, No. 44, 1891.)

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G. J. KAUMHEIMER.

HEMIPLEGIA AND EPILEPSY.—The following is an abstract of an article by Dr. E. D. Fisher, in which author said he had been giving some attention to epilepsy in cases in which during childhood there had been hemiplegia. Most of the cases which he had seen were adults, and he was unable to find very much difference between the convulsions in these cases and in idiopathic cases; the convulsions began no more frequently on the paretic side. Perhaps it had been different in childhood. He said post-mortem examination sometimes showed atrophy of the convolutions in some cases, and he thought that if an operation had been performed early, say at the age of three or four years, this progressive atrophy change might have been checked, nutrition encouraged, and the embryonic cells enabled by the increased nutrition and education to take on more or less of their normal function. This was important, not alone from the standpoint of overcoming the epilepsy, but also of improving the mental condition, which in these cases was well known to be deficient. (*Medical Record*, Nov. 21, 1891.)

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B. M. CAPLES.

REMARKS ON THE SO-CALLED "NONA."—The newspapers of Germany and Austria reported that the pandemic of influenza was followed by a mysterious disease called "nona."

The profession seems to have paid but little attention to it. Prof. Ebstein proposes the name of "grippe-coma" for this disease, but would exclude all cases in which meningitis, uræmia, or any other causative factor can be demonstrated. He reports the case of a woman, aged 53, who had suffered from functional nervous troubles since the menopause at the age of 36. After several transient attacks of coma, she became deeply comatose, with trismus, abolished reflexes, great excitement and very rapid pulse. Death after fourteen days. Autopsy showed œdema of the cerebral mass and membranes, and a hemorrhagic enteritis with swelling of Peyer's patches. E. refers the symptoms and lesions to some unknown infection, presumably the poison of influenza. In connection with this case he reports a case of prolonged sleep. This patient, now 28 years of age, of neuro-pathic ancestry, suffered from convulsions during dentition. At the age of 18 she showed signs of melancholia, with prolonged sleep. Two years later, after a period of melancholic depression, she slept for thirty weeks. After a normal interval of six years, she became sleepy as the result of a slight fright, and has slept ever since, with the exception of a few days, a year ago. The patient, a well-nourished girl, lay in a dark room, P. 104, R. 24, T. 37°C. When hungry or thirsty, yawning occurs, taste and smell good, swallowing is normally performed. Pinching and pricking are not felt, strong faradic currents cause moaning, no ankle clonus, contractures in both knees, pupils, when they can be seen, contracted. She seems to observe the presence of her mother. Desire to urinate is indicated by restlessness. She had pertusses two years ago, but did not wake up during the paroxysms. There is absolutely no resistance to passive motion. Menses are regular, and patient has been getting fat. The liking for various articles of food varies. Withdrawal of food was tried for one day. She did not wake up, but yawned continuously. (*Berlin. Klin. Wochensch.*, No. 41, 1891.)

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G. J. KAUMHEIMER.

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## THERAPEUTICS.

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DR. HOLMBOE, in a lengthy article on the care of the chronic insane, offers the following suggestions: (1) The chronic insane, whose condition is not dangerous to them-

selves or others, and whose habits are not likely to have an injurious effect upon their associates, should, as a rule, be cared for in some suitable private family. Patients who receive all, or part, of their support from the state, should be under the control of the county physician, and no changes made in the method of their care without his consent. Whenever particular circumstances make it difficult to procure a suitable place for one of these patients in his own county or district, such patients may be placed in some suitable family outside of their own county, but near one of the asylums, the management of which now assumes all control of the patient. (2) For all who are not suitable for this kind of care, the state should make ample hospital accommodations. In order to reduce the per capita cost necessary for the support of these patients, agricultural colonies, or several industrial buildings should be established in connection with each hospital. (3) The criminal insane should be cared for in separate asylums. (*Tidskrift Norske Lægeforening*, No. 12, 1892.)

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M. N. VOLDING.

THE VALUE OF OPIUM IN MELANCHOLIC STATES.—At the meeting of November 27th, 1890, of the Netherland Psychiatric Society at the Asylum in Utrecht, Holland, the value of opium in melancholic states was discussed. Dr. Winkler sets forth two conditions in which opium is of value. (1) In anxious states; indeed, the writer has often succeeded in aborting these conditions by means of large doses of opium. (2) In alternating psychoses with insomnia; here small doses act best. Dr. van Parsijn would not be without the remedy. He has seen several cases of melancholia where the remedy gave good and lasting results; these were chiefly recent cases where the action was striking. He never uses morphine in such cases, but prefers opium. Dr. Doedes Breuning finds that the use of opium in the Dutch asylums is greatly decreasing. Dr. van der Sith would limit the use of opium to acute cases. He quotes Schroeder van der Kolk, who used it only in pure melancholia. (*Psychiatrische Bladen*, Deel IX, Afl. 1.

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FRANK H. PRITCHARD.

TINCTURE OF CORONILLA VANA IN SEXUAL NEURASTHENIA.—Dr. V. Poulet has (*Bull. Gén. de Ther.*, Dec. 15, 1891) found in cardiac neuroses that cornilla calms erethism,

whether the cardiopathy be primary or secondary to general neurosis. It is of special value in the cardiopathy due to sexual excess, masturbation or tobacco.

J. G. KIERNAN.

NERVOUS SEQUELÆ OF CO POISONING.—Dr. Paul Schwerin, after an exhaustive criticism of numerous reported cases, reaches the following conclusions: The lesions of central origin are caused by the extreme congestion of the brain, due, according to Klebs, to the direct action of the gas upon the vessels, with an undiminished action of the heart. The peripheral lesions he believes to be caused by slight traumatism during unconsciousness, as pressure of the nerves against subjacent bones, as they mainly occur in the sciatic and musculo-spiral (radial) nerves, more rarely in the median. (*Berlin. Klin. Wochensch.*, No. 45, 1892.)

G. J. KAUMHEIMER.

### NEW BOOKS, PAMPHLETS, ETC.

THE JOURNAL OF COMPARATIVE NEUROLOGY is a quarterly devoted to the comparative study of the nervous system; edited by Dr. C. L. Herrick, Professor of Biology in the University of Cincinnati. This Journal, founded about a year ago, is a new undertaking, but, if it is continued upon its present scale, it will be one of the most valuable journals ever published. The original articles by Prof. Herrick are elaborate and pains-taking, and show great learning and research. Other very valuable articles are contributed. In addition to the original articles, the department of selections from neurological literature is equally valuable, as the editor seems to have condensed into a very brief space the current literature of the world on this special subject. We sincerely hope that this journal will be liberally patronized by the profession, for it deserves success.

NOTES ON GENERAL VERSUS LOCAL TREATMENT OF CATARRHAL INFLAMMATION OF THE UPPER AIR-TRACT, by Beverley Robinson, M. D., New York.

Address of the President, Dr. Wharton Sinkler, of Philadelphia, at the Seventeenth Annual Meeting of the American Neurological Association held at Washington, D. C., September 22d, 23d and 24th, 1891.

Actinomyces Hominis, by J. B. Murphy, M. D.

ON THE SIMULATION OF HYSTERIA BY ORGANIC DISEASE OF THE NERVOUS SYSTEM, by Thomas Buzzard, M. D., Fellow of the Royal College of Physicians in London; Fellow of King's College, London; Physician to the National Hospital for the Paralyzed and Epileptic, London: J. & A. Churchill, 11 New Burlington St. The author states that the basis of this little book was a presidential address before the Neurological Association of London, in January, 1890. Much has been written and said upon the simulation of organic disease by hysteria, but much less has been written upon the simulation of hysteria by organic disease. Dr. Buzzard's book is an important contribution to this part of the subject. The book is chiefly made up of histories of cases, with comments. He gives the histories of a number of cases in which there was difficulty in walking, with preservation of knee-jerks, and electrical reaction of the muscles of the lower extremities. The cases he reports he considers due to isolated atrophy of the ilio-psoas muscles, giving rise to a form of paraplegia which prevents the patients from going up stairs without assistance. The cases are interesting and instructive. He calls attention to the peculiar deformity of the foot accompanying Friedreich's ataxy, and which had previously been described by Dr. Ormerod. A very interesting part of the book is the space devoted to the subject of disseminated sclerosis, and the danger of mistaking it for hysteria. This book is alike valuable to the general practitioner and the specialist, and, like everything that Dr. Buzzard produces, is original and suggestive.

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THE FIRE PROTECTION OF HOSPITALS FOR THE INSANE, by L. H. Prince, M. D., resident physician "Bellevue Place", Batavia, Ill., formerly assistant physician Illinois Eastern Hospital for Insane, Kankakee. Dr. Prince has put into this little book everything that is important concerning the subject, and has been careful not to include anything that is not important. The first page contains a list of all the fires that have occurred in insane hospitals in this country, with a statement of the number of lives lost in each. He concludes the first chapter with the following summary: "The suggestions offered in the succeeding chapters are based up-

on the following propositions: 1. Fires in hospitals for the insane, as elsewhere, are in most instances preventable. 2. The rapid spread of fire is generally due to the faulty construction of buildings. 3. The appliances to be depended upon for extinguishing fire should be easily accessible, but entirely independent of the buildings to be protected. 4. A reliable and rapid method of giving an alarm is essential to a perfect system of fire protection. 5. No system of fire protection is complete that does not include a thoroughly organized and well-drilled fire brigade." The second chapter is on means to be adopted for the prevention of fire, and relates to the construction, heating and lighting of buildings. Later chapters contain full descriptions for extinguishing fires, and suggestions for the selection and use of fire extinguishers and apparatus. One of the most valuable chapters of the book is that devoted to drilling of the fire brigade, in which the most minute instructions are given for making the brigade efficient. In the preparation of this book Dr. Prince has done valuable service, and we hope it will be made use of in every institution in the country. The doctor's experience in institutions has been varied and extensive; he has made a special study of fire protection for institutions, and has put the result of his observations in a most compact and readable form.

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**PATHOLOGIE ET THÉRAPEUTIQUE DES MALADIES DU SYSTÈME NERVEUX.**—Manuel Pratique à l'Usage des Etudiants et des Médecins. Par le Dr. Louis Hirt, professeur à l'Université de Breslau. Traduit de l'Allemand par le Dr. M. Jeanne, assistant à la Clinique Médicale de l'Université de Liège, Belgium. Preface et annotations par le Dr. X. Francotte, professeur à l'Université de Liège, Avec 179 figures dans le texte. 649 pp., Liège, Belgium. Marcel Nierstrasz, Liège, Belgium, publisher. Price, 20 francs. French medical literature does not contain many manuals of the pathology of nervous diseases, hence the translator thinks himself justified in presenting Professor Hirt's work to the French medical profession. The German language, on the contrary, is well supplied with hand-books on neuropathology, yet among all these Prof. Hirt's work is undoubtedly the most practically written. It is concise, while, at the

same time, it leaves out nothing of importance, and presents in a clear, live, and truly didactic form, the vast and complex subject of neuropathology. Nothing useful or important has been neglected, and the recent additions to our knowledge of this subject find a summary, but substantial mention. The writer has preceded the different parts of his subject by preliminary sections on anatomy and physiology, and the reader will, no doubt, be pleased with the numerous excellent plates which adorn the work. The translation does not differ from the original. The translator has not burdened the work with notes and commentaries to disfigure it, and thus make it lose its greatest quality, its conciseness. Prof. Xavier Francotte has here and there added an annotation where a point would seem to need explanation. The bibliographic lists are especially complete; those works appearing since the original have also been added.

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FRANK H. PRITCHARD.

INSANITY OF GENIUS, by J. F. Nisbet, 1891. London: Ward and Downey, 12 York street, Covent Garden.

THE MAN OF GENIUS, by C. Lombroso. New York: Scribner and Welford, 1891.

The first of these works is a decidedly valuable contribution rather to the morbidity, than to the etiology of genius. Late in the last century Tissot published his "*Maladies des Hommes de Lettres*," which the Elder Disraeli claims,\* "terrifies and chills more than it does good." Disraeli, himself, compares the diseases of authors to those of the tailor, weaver, glass-blower and painter, in other words, to occupation disease. Nisbet, not being guided by medical opinion, nor being a medical man, ignores this view completely, and, accepting the dictum of Moreau de Tours that genius is a neurosis, proceeds to prove this by a most charming discussion of the diseases of genius. That Nisbet has but rather illy defined notions of what constitutes hereditary neurosis, is shown by the following sentence anent Cromwell's death: "The cause \* \* \* was ague, a malady, the obvious exciting causes of which are still unknown, but which is obviously of a nervous character." Under such a comprehensive use of the term neurosis, a large collection of neurotics must result. This is evident in the citation of case after case of

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\**Miscellanies of Literature*, p. 182.

acquired disease to illustrate Huxley's claim that genius is a sport. Shakespeare has been presented, by more than one antagonist of the morbidity of genius theory, as a hard nut for the advocates of the morbidity theory to crack. Nisbet attacks it in a seemingly logical fashion as follows: "The first circumstances calling for attention are the extraordinary mortality of Shakespeare's brothers and sisters, and his own early death. The poet was one of a family of eight, of whom only his sister Joan attained old age. Here is the testimony of the official register:

	BAPTIZED.	DIED.	AGE.
Joan.....	1558	} In Infancy	—
Margaret.....	1562		—
William.....	1564	1616	52
Gilbert.....	1566	1611-12	46
Joan.....	1569	1646	77
Ann.....	1571	1579	8
Richard.....	1573-74	1612-13	39
Edmund.....	1580	1607	27

Clearly this is not a healthy stock, the average life of its members, with all the advantage of the second Joan's patriarchal age, being less than thirty-two years. Joan's extremely long life as a member of a short-lived family is precisely what might be expected from such neuropathic conditions as determined the early death of Keats and his brothers, whilst enabling the elder sister, Fannie, to exceed the age of seventy."

*Wm. Shakspeare*

*2d by Mr William Shakspeare*

This criticism is, however, made from nineteenth century standpoints. Tried by those of the sixteenth century the life expectancy exceeds the normal, and the fecundity rate falls below it. The Shakespeare family would hence seem to be a normal one for the sixteenth century. The neuropathy of Shakespeare himself, Nisbet tries to prove from the signatures herewith given. Both exhibit a tremor which

might have been due to alcoholism, ague, or "writer's cramp." Shakespere, who wrote all his actors' parts, never blotted a line. Even were the tremor due to organic cerebral lesions, such are generally acquired, and are the product of the individual's life, not his ancestry. The details of the morbidity of genius are copious. The work merits perusal.

The work of Lombroso is very jerky in style and permeated by the same attempt which mars Nisbet's work, to establish absolute standards where none but relative exist. Lombroso states that the following stigmata are evidences of degeneracy. The mental are: Apathy, or deficiency of moral sense, frequent impulsive tendencies, doubting proclivities, mental inequalities and disproportions (engendered by excessive development of certain faculties, and absence or increase of others), verbosity, or exaggerated mutism, foolish vanity, excessive egotism, mystic interpretation of simple facts, such abuse of special terms, symbols and emphasis, as to lead to complete suppression of other forms of expression. The physical stigmata are: Pointed or defective ears, excessive or deficient hair, irregularities of the jaws and teeth, facial and cranial assymetry, sexual precocity, bodily slenderness and disproportion, left-handedness, stammering, rachitis, excessive fecundity (neutralized later by abortion or complete sterility) preceded by anomalies in childhood which always aggravate it. Both mental and physical stigmata are found with remarkable frequency, according to Lombroso, among men of genius. The most amusing error of Lombroso's is where he ignores the "concentrated inhabitant" tendencies of Americans, in claiming that the numerous occupations of Walt. Whitman were evidences of abnormality. This is a fair illustration of his attempts to establish absolute criteria.

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J. G. KIERNAN.

SYPHILIS IN ANCIENT AND PRE-HISTORIC TIMES, by Dr. F. Burét, Paris, France, translated from the French, with notes, by A. H. Ohmann-Dumesnil, M. D., Professor of Dermatology and Syphilology in the St. Louis College of Physicians and Surgeons, etc., Philadelphia and London. F. A. Davis, Publisher.—Dr. Ohmann-Dumesnil has rendered a valuable service to the profession in translating this book. We understand that the second volume is soon to be issued. This volume consists of twelve chapters in which the origin

of syphilis is considered, and also its existence in pre-historic times. The various chapters treat of the existence of syphilis among the Chinese, Japanese, Egyptians, Ancient Assyrians, Hebrews, Hindoos, Greeks and Romans. It is impossible for any Review to do justice to this valuable book, or to fitly represent its contents. The amount of research which its preparation involved must have been enormous, and we congratulate the publisher upon having issued it, as it ought to be, and doubtless will be, read very widely. Every nook and corner of history, ancient and modern, profane and sacred, the records of art, of superstition and legend, seem to have been searched by the author for information. All this is systematized, condensed, and presented in a readable and highly interesting form.

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HISTORY OF CIRCUMCISION FROM THE EARLIEST TIMES TO THE PRESENT. MORAL AND PHYSICAL REASONS FOR ITS PERFORMANCE, WITH A HISTORY OF EUNUCHISM, HERMAPHRODISM, ETC., AND OF THE DIFFERENT OPERATIONS PRACTICED UPON THE PREPUCE, by P. C. Remondino, M. D., Jefferson, member of the American Medical Association, etc. F. A. Davis, publisher. This book is divided into twenty-six chapters, and is a critical consideration, from the medical standpoint, of everything that relates to the subject. The history and practices of every nation, ancient and modern, savage and civilized, seems to have been searched for information bearing upon this subject.

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THE SURGICAL TREATMENT OF PYLORIC STENOSIS, WITH A REPORT OF FIFTEEN OPERATIONS FOR THIS CONDITION, by N. Senn, M. D., Ph.D., Professor of Practice of Surgery and Clinical Surgery in Rush Medical College, etc. Reprinted from *The Medical Record*, November 7th and 14th, 1891. This little pamphlet is fully up to the standard of all the author's productions, than which no higher praise could be offered. He concludes with the following propositions: 1. "Pyloroplasty, as devised by Heineke-Mikulicz, is the safest and most efficient operation for cicatricial stenosis of the pylorus. 2. Pylorotomy in the treatment of carcinoma of the pylorus is a justifiable procedure when the disease is limited to the organ primarily affected, and the patient's general condition furnishes no contra-indication. 3. Gastro-enterostomy by

the aid of large, moist, perforated plates of decalcified bone, should be resorted to in the treatment of malignant stenosis of the pylorus as soon as a positive diagnosis can be made, and a radical operation is contra-indicated by local or general conditions of the patient."

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STUDIES FROM THE PATHOLOGICAL LABORATORY OF THE COLLEGE OF PHYSICIANS AND SURGEONS, COLUMBIA COLLEGE, N. Y. FOR THE COLLEGIATE YEAR 1890-1891.—This reprint contains contributions from the laboratory by the well-known director, Prof. Prudden, and his numerous assistants. The table of contents is as follows:

A Contribution to the Pathology of the Laryngeal and other Crises in *Tabes Dorsalis*. Alternate Paralysis, by Ira T. Van Giesen, M. D., first assistant in normal histology. A Case of *Spina Bifida* with Suppurative Spinal Meningitis and Ependymitis due to Bacteria, by L. Emmet Holt, M. D., and Ira T. Van Giesen, M. D. Observations on Prurigo, by R. W. Taylor, M. D., and Ira T. Van Giesen, M. D. The Anatomy and Physiology of the Faucial Tonsils with Reference to the Absorption of Infectious Material. Actinomycosis of the Lungs, by Eugene Hodenpyl, M. D., first assistant in pathology. Studies on the Etiology of Diphtheria—second series, by T. Mitchell Prudden, M. D., director of the laboratory. Studies on the Action of Dead Bacteria in the Living Body, by T. Mitchell Prudden, M. D., and Eugene Hodenpyl, M. D. The articles more immediately related to neurology are all by Dr. Ira Van Giesen: (1) A Contribution to the Pathology of the Laryngeal and other Crises in *Tabes Dorsalis*, by Ira T. Van Giesen, M. D. (2) A Case of *Spina Bifida* and Suppurative Spinal Meningitis and Ependymitis due to Bacteria, by L. Emmet Holt, M. D., and Ira T. Van Giesen, M. D. The first article by Dr. Van Giesen is an interesting study of the crises of *tabes*, in which he works out their mechanism in a most interesting way. The second article is a history of an unusual case, which cannot be easily summarized, but is very instructive. We are glad to commend the work of the medical gentlemen who are associated in this laboratory. The medical students of this generation have an immense advantage over those who graduated twenty years ago, in the opportunities which are afforded for such work as is done here. Dr. Van Giesen's Work on the Histology and Pathology of the Nervous System has attracted wide attention.

## GERMAN LITERATURE.

International Contributions to Scientific Medicine, issued in honor of the 70th birthday of R. Virchow.

Demme.—The Influence of Alcohol upon the Organism of the Child.

Kundt.—The Latest Developments of the Theory of Electricity.

Gowers.—Diseases of Nervous System, translated by Dr. Karl Grube.

Schmidkunz.—Psychology of Suggestion.

Mueller.—Contributions to Practical Electro-Therapeutics in form of a casebook.

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MISCELLANEOUS.

HOW TO ADMINISTER IRON.—It is generally conceded that the officinal tincture of chloride of iron is the most valuable of the iron preparations therapeutically. The practical difficulties attending its administration for a length of time have been its disagreeably astringent taste, its corrosive action on the teeth, and its constipating action. Dr. G. W. Weld's extensive experience in the practice of dentistry led him to recognize the virtues of the tincture of the chloride of iron as a stimulant resource for patients after the strain of the dentist's work. Repeated experiments to obtain a formula free from objectionable features resulted in the preparation of a highly palatable syrup with all the therapeutic efficacy preserved. This has been extensively tested and placed in the hands of Parke, Davis & Co., for manufacture, who strongly commend it to the medical profession for trial. Being prepared after Dr. Weld's formula, it is entitled, Weld's Syrup of Iron Chloride (P., D. & Co.'s). It is believed it will effect a revolution in iron administration.

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# THE REVIEW

OF

## INSANITY AND NERVOUS DISEASE.

A QUARTERLY COMPENDIUM OF THE CURRENT LITERATURE  
OF NEUROLOGY AND PSYCHIATRY.

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JAMES H. MCBRIDE, M. D.,

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# “IMPURE” PARETIC DEMENTIA.

By JAMES G. KIERNAN, M. D., Chicago.

Fellow of the Chicago Academy of Medicine.

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Many European and some American alienists have drawn the line between insanity attacking an intact organization and attacking one already disordered by heredity or disease. What is true of insanity is also true of paretic dementia. This certainly becomes tinctured with certain features according to the organization it attacks. The organization attacked may already be the victim of a constitutional disease like phthisis, in which case the emotional exaltation of the *spes phthisica* becomes exaggerated by the emotional state of true paretic dementia, permeated, however, by a suspicious phase. The claim has been made that these are not paretic dementia plus the individual defect, but new types of paretic dementia. Fournier has gone so far, for example, as to claim that syphilis produces a pseudo-paretic dementia. I have already shown that exceedingly valid grounds exist for not admitting the existence of such a type. Bonnet\*\* has recently supported the position taken by me in a memoir crowned by the French Medico-Psychological Association. Régis\*\*\* has gone even further than Fournier, for he claims that beside the

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\*“Alienist and Neurologist,” 1883.

\*\*Ann. Medico-Psych., 1891.

\*\*\*Archives de Neurologie, 1882.

type of paretic dementia, which becomes developed in its own time, and which is the true paretic dementia, there are other cases which occur unexpectedly, sometimes before, others after the ordinary period, which may be said to range between the ages of twenty-five and sixty-five years. The first may be designated as premature paretic dementia, the second as late paretic dementia. Cases before the age of twenty-five years are very rare, and only a few cases are recorded coming on before the age of twenty. The premature type, unlike the ordinary type, has always a powerful ætiological factor, such as heredity, syphilis, traumatism, saturnism, or general or local diatheses. These causes appear to determine in these cases an early predisposition, and prematurely to place the brain in those conditions in which it is found in mature life. Premature paretic dementia has a slower progress and a longer duration ; it is more frequently subject to remissions and is susceptible of a more or less permanent cure. To the designation premature and to the positiveness of the position here taken, I have\* shown that most decided objections exist. The symptoms which Régis has grouped under this title may appear at any age and are due not to the age but to the organism attacked. A careful examination which was made of the subject some years ago\*\*, demonstrated to me that this was the true explanation of the facts cited by Régis in support of his position. Whatever be the ætiological factor the organism attacked tinges the paretic dementia and not the ætiological factor. The normal organism furnishes the typical paretic dement. The organism in which a neurosis has been set

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\*Amer. Lancet, Vol. VII.

\*\*"Alienist and Neurologist," 1883.

up by phthisis, lues, gout, rheumatism, traumatism, lead-poisoning, insolation, heredity, ataxia or other causes, furnishes atypical cases of paretic dementia presenting many features in common. These atypical cases simulate those of other psychoses at various times during their progress. Foville\* states, for example, that during the last few years cases of paretic dementia have been noticed in which delusional states added to muscular agitation, assumed alternately the form of maniacal exaltation and melancholic depression, and it has been proposed to class these as paretic dementia, a double forme. The chance of error that we most often meet with is the possibility of confounding the period of excitement of circular insanity with the beginning of the expansive period of paretic dementia. The resemblance may be very great both as regards bodily and mental symptoms. When intellectual disorder is added to the maniacal exaltation of circular insanity, it frequently assumes the form of the grandiose delusions so frequent in paretic dementia. Even when there is no delusion, properly so called, the resemblance may be very great. The mind deranged with enterprises, the opinion of self in the intellectual, artistic and poetical domain exaggerated, the optimism generalized, in a word, accompanied by impulses to theft, to excesses of all kinds, to the most compromising actions, might produce the appearance in the two psychoses of almost identical characteristics. It is well known that certain paretic dementals at the beginning of their excitement may not present any speech or motor disorder. On the other hand, in certain cases of circular insanity, the close connection between the emotions and the cerebral activity may

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\**"Brain,"* Oct. 1882.

impart to the speech a degree of tremulousness very distinguishable from that of paretic dementia. Finally, as Falret has shown, in a few cases of circular insanity, pupillary derangements, apoplectiform and epileptiform attacks have been noticed. A psychic element of great value would be the inception of dementia which is common enough at the onset of paretic dementia to be considered constant. But this is often so disguised in consequence of the general state of excitement that it is almost impossible to ascertain its existence. Régis\* thinks he has found a criterion in the nature of the patients' feelings. He claims that the paretic dement is really kind-hearted, generous and even prodigal, desirous of being agreeable to everybody and spreading around him the treasures of a common benevolence. The patient suffering from circular insanity is wicked above everything, cantankerous, ironical and clever in injuring everybody.

Falret forcibly says: "We are far from denying this is often so, but we have known paretic dementes who were caustic and mischievous, and patients suffering from circular insanity may be found who are generous and benevolent."

Giles\*\* states that circular paretic dementia bears the same relation to circular insanity that exalted and depressed periods do to mania and melancholia. It is especially frequent in hereditary cases. The remissions occur with great suddenness and apparent completeness. In the depressed period intellectual and organic failure with trophic disorders occur. In the expansive period temporary amelioration is

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\*"L'Encephale," 1881.

\*\*Sajons, Annual, 1892

likely to occur. Eschars, congestive attacks, the menstrual period, and acute diseases favor the transition of one phase into another. Circular paretic dementia may appear suddenly after one or two attacks of simple insanity, or in the course of true circular insanity, the alternating type being most frequent. The duration of the psychosis is longer than the ordinary type of paretic dementia.

How difficult the diagnosis between paretic dementia and circular insanity sometimes is has been shown in one of my own cases. This patient, who has a strong hereditary taint, is regarded by me as a paretic dement and by Drs. Dewey and Bannister as a case of circular insanity. The insolation, traumatic luetic, and phthisical types, but particularly the hereditary taint types have a particular tendency to assume this circular phase.

The rheumatic and gouty types have prolonged remissions, which may, as Spitzka, Régis and myself have observed, pass into recoveries. In my experience the other types do not recover as Régis claims, but there is a long-lasting, querulent, paralucid condition, in which the patient, while retaining to a limited degree his former exalted opinion of himself, conceals this under resentment evinced in law-suits or fault-finding. This exalted opinion is often the result of a delusion of memory. The same is true of the depressional delusions, which are sometimes so thus retained as to affect business transactions. One of my patients with decided hereditary stigmata was attacked by paretic dementia. His periods of exaltation and depression alternated twice or thrice and disappeared, leaving a paralucid querulent, pessimistic state. He had an inward conviction, from what were evidently memory delusions based on his former depression, that everything was going to go wrong

with his business. Under the influence of this state he sold out some stock, which, by a bear movement induced by a law-suit, had been forced down in value. This law-suit and the resultant "bear" movement had been foreseen by him, when he purchased the stock. The stock rose above par within a week after he sold it. The remission gave place to a period of depression followed by one of emotional exaltation, during which he was committed to an insane hospital. Suit was brought by his conservator to annul the sale of the stock. The jury under the instructions of the court decided that the sale should stand. This decision was in full accord with repeated decisions of the Illinois and Iowa Supreme Courts, which hold persons of unsound mind are to be held bound by an executed contract or conveyance where the transaction is fair and reasonable, and in the ordinary course of business, and where the mental condition of the party is unknown to the second part, and the parties cannot be placed *in status quo ante*. In another case with hereditary taint complicated with lues, there occurred periods of paralucid querulence, emotional depression and exaltation. The patient previous to the demonstrable onset of the paretic dementia had contracted to have two houses built. The contractor after making several sub-contracts failed. The sub-contractors demanded payment of the paretic for work for which the contractor had been previously paid. This was refused. The patient was sent to an insane hospital, whence he was discharged in a paralucid querulent interval. Despite my advice to the contrary he was placed in charge of his property. In a short time he verbally agreed to pay the contractors their bills. Owing to a new period of exaltation requiring hospital treatment, these promises were not

fulfilled whereupon suit was brought. The jury decided for the plaintiffs for the same reason as in the previous case.

These impure types are hence of peculiar forensic interest since they nullify the ordinary prognosis as to the duration of remissions in paretic dementia and of the disease itself.

A prominent clinical feature of these cases is the temperature. Rottenbiller\* has found the paretic temperature is sub-normal, and that extraordinary daily variations, without apparent cause, are frequent (in one case the temperature rose from 97° F. in the morning to 102.60° F. in the evening, and fell again to 88° F. the next morning); these characteristics are present in the early stages of the disease and in remissions. This in my experience has been almost exclusively the case with the premature paretic demented. In these the asymmetrical axillary temperature to which I called attention nearly a decade and a half ago,\*\* is peculiarly frequent.

Régis has sufficiently, albeit too strongly, covered the point of age. The luetic, gouty, rheumatic, traumatic and hereditary types may occur at any age. The luetic cases resulting after the age of 65 are of rather long duration. In three such cases the patient reached the age of 73, but each resided the whole period in an insane hospital. In three hereditary cases occurring after 65, (one male, two females) of less duration; (six years) three sons were also afflicted at from 17 to 23 with paretic dementia. The sons died, ere their parents from intercurrent complication due to trophic changes; the spinal symptoms were especially predominant. In epileptics who became paretic demented at the climacteric

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\*Allge. Zeitschrift, f. Psych., 1885.

\*\*Jour. of Nerv. and Ment. Dis., 1878.

period, the psychosis ran its usual course and rarely lasted three years after its onset. In ataxics, however, the remissions were frequent and protracted but querulency existed. As to race the Hebrew seems to be peculiarly liable to this type. Lues and heredity often in them prepare the soil which the psychosis attacks. Indeed, pure paretic dementia is, in my experience, rare with Hebrews in New York and Chicago. These impure types are proportionately much more frequent with them than any other race. The features by which Régis attempted to demarcate circular insanity from paretic dementia would serve excellently to demarcate impure from pure paretic dementia.

## TRANSLATORS.

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### ITALIAN.

H. M. BANNISTER, M. D., Asst. Physician Eastern Illinois Hospital for Insane, KANKAKEE.

F. H. PRITCHARD, M. D., NORWALK, OHIO.

### GERMAN.

G. J. KAUMHEIMER, M. D., MILWAUKEE.

CLEMENT VENN, M. D., CHICAGO.

H. M. BANNISTER, M. D., KANKAKEE.

JOS. KAHN, M. D., MILWAUKEE.

### ROUMANIAN, RUSSIAN, DUTCH AND PORTUGUESE.

F. H. PRITCHARD, M. D., NORWALK, OHIO.

### FRENCH.

J. G. KIERNAN, M. D., CHICAGO.

### SPANISH.

HORACE M. BROWN, M. D., MILWAUKEE.

F. H. PRITCHARD, M. D., NORWALK, OHIO.

### SWEDISH, DANISH AND NORWEGIAN.

M. NELSON VOLDING, M. D., Asst. Physician State Hospital for Insane, INDEPENDENCE, IOWA.

F. H. PRITCHARD, M. D., NORWALK, OHIO.

## NEUROLOGICAL.

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### ANATOMY AND PHYSIOLOGY.

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REFLEXES OF THE BRAIN AND SPINAL CORD.—This was the subject of a clinical lecture by Dr. D. R. Brower, delivered at the Chicago Woman's Medical College.

Primarily, the most important office of the cord, from a diagnostic point of view, is its reflex function. If the reflexes are perfect, then the reflex arc must be in a state of integrity. If, therefore, there is a normal condition of a reflex, one is justified in concluding that the spinal segment in which that reflex is located is in a state of physiological harmony. There are two great classes of reflexes: the superficial and the deep. The superficial reflexes enter the spinal cord through the posterior horns; the deep reflexes enter it through the posterior external columns, thence passing through the posterior horns on their way to the anterior horns. Therefore the line of entrance for the deep reflexes is through the posterior columns; that for the superficial is through the posterior horns. Concerning the patellar reflex it is important to observe that it may be absent in health. The other deep reflex is called ankle-clonus, and is present when the tendon-patellar reflex is exaggerated. The most common cause is degeneration of the lateral columns of the spinal cord. The superficial reflexes are: the plantar (obtained by tickling the sole of the foot), the cremasteric (obtained by irritating the inner aspect of the thigh and observing the movement of the cremasteric muscle), and the abdominal reflex (obtained by irritating the cutaneous surface of the abdominal walls below the line of the umbilicus). Besides these, there are the epigastric reflex, the gluteal reflex, the scapular reflex, and other reflexes in the upper extremities. In addition to these, there are the faucial reflex, the chin-reflex, the eye-reflexes, and the visceral reflexes. The lecturer called attention to investigations of Dr. Hughes on the virile reflex. The lecture was illustrated by a number of clinical cases.—(*International Clinics*, January, 1892).

THE CLINICAL INVESTIGATION OF THE SKIN REFLEXES. Under Geigel's direction, Plaesterer has investigated the frequency with which the reflexes occur in 100 men not the subject of nervous disease. He found:

The epigastric reflex in	62 per cent.
abdominal reflex in	99 "
cremaster reflex in	66 "
plantar reflex in	98 "
interscapular reflex in	15 "
gluteal reflex in	28 "
periosteal,(ant. surface of tibia)reflex in	5 "
" at wrist reflex in	29 "
patellar reflex in	98 "
achilles reflex in	57 "
biceps tendon reflex in	47 "
triceps reflex in	48 "

Geigel has extended these observations upon 100 women. He found:

The plantar reflex in	88 per cent.
abdominal reflex in	92 "
intercostal reflex in	16 "
interscapular reflex in	13 "
gluteal reflex in	11 "

The three latter occur so rarely that they have no clinical significance. The cremaster reflex, however, is one of the most important of the skin reflexes, both on account of its almost constant presence in health and its abolition upon the paralyzed side in hemiplegia. It allows us to predict the location of the paralysis and to make the diagnosis of a focal lesion at a time when the immediate symptoms of an apoplectic seizure have not passed off. It was, therefore, important to ascertain whether an equivalent reflex existed in the female. Geigel has found that irritation of the inside of the thigh was followed by a contraction of the lowest fibers of the internal oblique muscle (which, in the male, form the cremaster), parallel with and above Poupart's ligament. This he found in 100 females, 87 times plainly, 7 times faintly, twice on one side and absent 4 times. In 3 female hemiplegics it was missing on the paralyzed side. He proposes to substitute the name "oblique, or inguinal reflex," for cremaster reflex. He also calls attention to the fact that the skin reflexes are easily exhausted. Even in very sensitive persons, who squirm on attempting to obtain the plantar and other reflexes, the later attempts may be

fruitless. He therefore suggests that in examining the skin reflexes the first irritation be decided, so as to obtain the reflex at once, if present, as later attempts are very apt to be misleading.—(Dr. R. Geigel, *Deutsche Med. Wochensch.*, No. 8, 1892).

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G. J. KAUMHEIMER.

VASCULAR REFLEXES.—Ranvier states (*Prog. Med.*, April 9, 1892) that when the nerve filaments which accompany the median artery of a rabbit's ear are compressed, there is observed vaso-dilatation beyond the point compressed, while in the opposite ear there is marked contraction of the arteries. This phenomenon indicates that there are, for example, in the right ear sensitive nerves which form a reflex circuit with the motor nerves of the left ear. The excitation of aural sensitive vascular nerves does not exert an influence upon the reflexes of the ear excited.

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J. G. KIERNAN.

LOCALIZATION OF KNEE-JERKS.—Dr. C. S. Sherrington mentions in *The British Medical Journal* of March 12, some experimental observations upon this subject. He says the phenomenon is admittedly in intimate dependence on the integrity of a reflex arc. He found that not the whole of the quadriceps extensor of the thigh, or of the anterior crural nerve, is necessary for the "jerks"—it depends upon the vastus internus muscle, and perhaps the subcrureus and branches of the anterior crural nerve. If the branches given by the anterior crural nerve to the vastus internus and subcrureus be cut through the knee-jerk disappears at once, although the nerves to the rectus femoris, the crureus, and the vastus internus all remain intact. If, on the other hand, all the branches given by the anterior crural nerve to the rectus femoris, crureus, and vastus externus are divided, the knee-jerk remains brisk so long as the branch to the vastus internus be left intact. Cutting across the posterior root of the fifth lumbar nerve of the rhesus abolishes the knee-jerk at once. Section of the anterior root alone has the same effect. Section of a half of the posterior root and one particular nerve, the fifth, suffices to abolish the jerk. After transverse division of the cord of a monkey at the level of the second lumbar nerve root the "knee-jerk" disappeared and did not return, although observations were continued for over three months.

B. M. CAPLES.

SENSORY LOCALIZATION IN THE CEREBRAL CORTEX.—Dr. Phillip C. Knapp publishes a case bearing upon cortical sensory localization. The patient was a man who received a bullet wound of the skull in 1862. Some years afterward he developed convulsions. He also had attacks of headache with progressive failure of mental power. On examination, sensation was unimpaired, this being an important point to note in this case. The skull was trephined at the point of injury and a small piece of cortex was excised. During the operation the cortex was lacerated, this occurring at the middle third of the left ascending parietal convolution. After recovery from the effects of the operation there was a loss of sensibility. In commenting upon this case Dr. Knapp says: "To sum up the case, therefore, we have a man with normal sensibility and slightly impaired motor power, who has a lesion of the middle third of the left ascending parietal convolution. This is almost immediately followed by a slight and temporary impairment of strictly purposive movement, by the loss of sensibility to touch, pressure, motion, and position, and by motor incoordination. Sensibility to pain and temperature remain unaffected throughout. The sensory disturbances and incoordination persisted seven weeks after the operation. This seems to prove as conclusively as one case can, that the sensory centres are in the central convolutions. It is, of course, the most utter begging of the question to assume that there is a coexistent lesion of the limbic lobe, either from a lesion induced by the operation, or from an extension of an inflammatory process from the wound—no sign of inflammation being present there. While I do not accept fully Munk's hypothesis that the functions of the central region are purely sensory, nevertheless the symptom-complex presented in this case is in singular accord with the results of Munk's experiments in this region.

The symptom-complex observed in many cases of syringomyelia points to the belief that the tracts for the sensations of pain and temperature are separate from the other sensory tracts. The fact that these sensations were unimpaired in his case, leads us to ascribe to them also independent centres in the cortex. As a therapeutic measure the operation must be regarded as a failure.

On the 14th of May, 1891, I saw him again in consultation with Dr. Alfred Worcester, of Waltham. During the summer he had been fairly well, and he was able to go

about and to walk quite a distance. In the autumn he had another convulsive seizure, and since then there had been a marked mental deterioration and a return of the convulsions. I found him sitting up in bed, but it was impossible to get him to answer questions intelligently. The speech was very slow. He remembered the hospital and my name, but he entirely failed to recognize me. He could still remember certain events of his life, and he retained a fondness for tobacco. He kept saying, 'I would like to see Dr. Knapp,' but he could not comprehend when told that I was present. Sensibility to pain was evidently present in the right arm, but his mental dullness was so great that it was impossible to test the tactile sensibility."—*Boston Medical and Surgical Journal*, Oct. 22, 1891.

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BLOOD SUPPLY OF THE CEREBRAL GANGLIA.—While the cerebral cortex and mass are supplied by arteries which freely anastomose, the great ganglia are supplied by branches which must be considered as end-arteries whose occlusion occasions serious disturbances. The anterior cerebral artery gives off several branches from its anterior part which run backward, enter the brain through the lamina perforat. later., and are distributed to the head of the caudate nucleus, the anterior limb of the inner capsule and the anterior part of the outer portion of the lenticular nucleus. From the origin of the anterior cerebral artery, the carotid and the Sylvian artery, very fine branches are given off, which enter the brain at once and supply the knee of the internal capsule and the anterior portions of the lenticular nucleus. In this area, the author has frequently found symmetrical foci of softening in prolonged CO-poisoning. Branches of the posterior cerebral artery supply the lenticular nucleus and the higher levels of the internal capsule, whose lower portion derives its blood-supply from the anterior choroid and posterior communicating arteries. The anterior choroid artery usually arises from the carotid and runs to the anterior end of the Sylvian fissure, covered by the temporal lobe. It there enters the ventricle, forms a plexus with parallel branches in the choroid plexus and sends a large branch to the foramen of Monro. It supplies chiefly the posterior limb of the internal capsule and the innermost portions of the nucleus lenticularis. The posterior communicating artery sends a branch (described by

Heubner) to the anterior third of the posterior capsule and parts of the thalamus.—(*Dr. Kolisko, Wien. Med. Presse*, No. 3, 1892).

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G. J. KAUMHEIMER.

CRANIO-CEREBRAL TOPOGRAPHY.—Penta, in conjunction with Prof. Bianchi, at the Institute Psichiatrica of Naples, instituted a series of researches to determine the correct weight of the different cerebral lobes and to ascertain the exact relations of the brain with the cranium. As regards the first of these objects he reported the results as yet incomplete, but was able to say that after thorough testing, he had fixed a line on the exterior of the skull that fell exactly within the extremity of the frontal convolutions. This line is obtained as follows: first draw a line from the bregma to the beginning of the zygomatic arch, then from the end of this arch, parallel to the first, draw a second line, and then a third midway between these two,—this lies directly over the track of the middle meningeal artery. Then, finally, draw another from the upper end of this last to a point at the base between it and the first and we have the line that exactly cuts the anterior margin of the three frontal convolutions. This line is mathematically exact, and the author wished it known as others appeared not to have described it.—(*Archivio Italiano per le Malatie Nervose*, Nov., 1891).

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H. M. BANNISTER.

THE MENINGEAL ARTERY.—Peli has made investigations as to the depth and location of the sulcus on the internal face of the cranium caused by the meningeal artery in the sane and in the insane. After recalling what had been already done by Danillo and Lombroso he reported his own examinations, which were made on one hundred crania of sane and two hundred of insane individuals, all ranging from fifty-two to fifty-six years of age and about equally divided between males and females. He found it in the sane most developed on the left side in 65 per cent, and on the right in 23 per cent. In the insane the per centages were 59.5 per cent on the left side, and 26 per cent, on the right side. Taking together his own and others' observations he concludes:

(1.) That with the exception of microcephalics, in which there is a predominance of symmetry on both sides of the sulcus of the middle meningeal artery, we usually find it

more marked on the left than on the right side in normal adults, in anthropomorphic apes, in the insane, and in criminals; in other words, the asymmetry is in favor of the left side of the endocranium.

(2.) There are, however, notable differences; thus, according to the researches of Danillo in men and apes, and those of Lombroso in criminals, the difference between the figure of greatest development of the sulcus on the left, and that of equal development on both sides, is slight; whereas, according to the observations of the authors it is rather marked both in sane and (though to a less degree) in the insane, and with predominance usually upon the left side, or of asymmetry, but this last will be less frequent in subjects psychically sound.

(3.) Finally, the greater development of the sulcus of the middle meningeal artery on the inner surface of the skull on the right side occurs more seldom in microcephalous cases than in primate and delinquent, although according to the authors' data it is met with more frequently than in either of these in sane individuals, and still more in the insane.—(*Archivio Italiano per le Malattie Nervose*, Nov., 1891.

H. M. BANNISTER.

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SOME ORIGINAL VIEWS.—On receiving a copy of Prof. Waldeyeo's article, "On the Result of the Latest Investigations in the Anatomy of the Nervous System," Prof. Benedikt, of Vienna, takes occasion to point out in an open letter, a number of fallacies. He states that with W.'s authority and just renown as a teacher errors acquire a weight impossible if taught by less celebrated men. He begins by doubting whether the cortex contains a motor centre at all, that is, independently of subcortical organs. He claims that the experiments of Goltz show that animals deprived of their cortex are normal in their motor functions after they have recovered from the initial paralysis due to the traumatism. He claims that he himself in 1864 and Ladame in 1865 have shown that the only motor symptom proceeding from the cortex is convulsion. "*Convulsion is the specific motor symptom of the cortex.*" Convulsions due to irritation of the internal capsule are simply due to the irritation of the conducting paths. *Lesions of the capsule produce, at most, isolated paralyses, never convulsions.* The motor impulse requires the interpolation of a motor subcortical cerebral centre to be translated into motion in the

end-organ. Benedikt has no use whatever for the modern methods of staining and hardening, which, he says, cover minute changes, obscure normal relations and tend to establish the appearance of false ones. He then proceeds to deny that the pyramidal tracts are the paths of the motor impulse, and thinks that these must be sought in some of the structures decussating in the anterior gray commissure. *Physiologically the anatomical fact of the destruction of the pyramidal tracts never results in paralysis, but always contracture.* He believes that the function of the pyramidal tracts is fixation of the joints by means of tension of the muscles during effort. The fact that the pyramids degenerate during severe motor lesions does not indicate similarity of function. *A secondary degeneration does not necessarily denote a systemic connection. Different parts of the nervous system are trophically dependent on each other, without being physiologically similar in function.* Benedikt does not believe that the results of experiments upon animals are likely to result in any addition of facts in the anatomy or physiology of the nervous system of man. *The application of a physiological fact relating to one species to another, especially a higher one, is not permissible without special proof and is an error of method.* He claims to have very good grounds for the belief that those fibers which conduct motor impulses to the muscles and whose destruction alone produces paralysis, are not interrupted by gray matter, *but pass directly from the subcortical centres to the muscles.* While not denying that a number of the fibers of the anterior roots originate in the cells of the anterior horn, he claims that this accounts for only a part of them. Throughout the entire paper Prof. Benedikt expresses great contempt for most of the men at present investigating the nervous system in Germany, who, he says, are infected by the "clique-bacillus," and whom he accuses of suppressing or distorting facts to suit their views and performing experiments, not to find facts upon which to build theories, but to prove preconceived theories.—(*Wien. Med. Blætt.*, Nos. 1 and 2, 1892).

Italics the author's.

G. J. KAUMHEIMER.

## PATHOLOGY AND SYMPTOMATOLOGY.

TUMOR OF THE BRAIN, RESULT OF AN APOPLEXY.—Dr. J. A. Campbell contributes notes of a case as above. Patient, aged 33, was admitted to the asylum Nov. 17, 1870. Previous to admission had been dull, morose and much depressed. Temperature and pulse slightly above normal. For nine years remained in about the same condition, during which period complained of rheumatic pains for a short time. On July 3, 1891, had a paralytic seizure with slight loss of power on right side. Complained of a feeling of giddiness. No change in mental condition. July 12 had another fit, after which the paralysis increased. Right arm remained powerless; leg shortly regained power. During August patient slightly improved. In September arm and leg dwindled considerably. Had several slight fits at night. On September 15 a pustular eruption, like a half oval in shape, appeared over the lower part of the abdomen. Became suddenly comatose on Sept. 30, and died Oct. 3. Post-mortem examination showed following conditions: Calvaria thickened; dura mater was not adherent to the bone, nor was it thickened. A tumor the size of an orange was found in the right hemisphere; it was placed immediately above the lateral ventricle of that side. In consistence it was firm, appeared encapsuled, and required no dissection to remove it from the brain. The tumor included the gyrus fornicatus and corpus callosum, or had displaced these and caused their atrophy. It lay rather more posteriorly than anteriorly. It did not cause any change in the appearance of the surface of the brain, and its presence could not be detected until the hemispheres were separated. Tumor weighed five ounces. Section of the brain showed no changes other than atrophy of the gray matter. Arteries at the base were atheromatous. Author had diagnosed sanguineous apoplexy and was exceedingly surprised at the post-mortem revelations. Dr. Cotes examined the tumor and is of the opinion that it was a large blood-clot which was undergoing the process of organization.—*Lancet*, Feb. 13, 1892.

B. M. CAPLES.

CASE OF TUMOR OF THE MID-BRAIN AND LEFT OPTIC THALAMUS.—Dr. J. H. Lloyd reports the case of an Italian laborer whose first symptom was paralysis of the right arm.

Fifteen days later, severe headache on left side; at the same time left eyelid began to droop. The left third nerve was paralyzed as shown by ptosis and external strabismus. Right leg paretic and left patellar reflex was exaggerated; slight ankle-clonus; neither of these present on the right, or paralyzed side. The case thus presented a crossed paralysis, the left third nerve being involved with right brachial monoplegia and right crural monoparesis. Vomited occasionally. There was a transmitted reflex on the left, or non-paralyzed side, from sensory irritation of the right side. Irritation over either the right or left eye caused a reflex movement in the left, or non-paralyzed leg. Two days before death pupil of the right eye was contracted to a pin-point, while the pupil of the left eye was much dilated. Autopsy revealed a tumor of the left optic thalamus and the mid-brain, involving the left cerebral peduncle. The left cerebral peduncle was enlarged and the left third nerve displaced by the growth. The tumor extended forward involving and obliterating the corpora mammillaria. Optic tract was slightly flattened and broadened. Tumor projected far across the third ventricle and also up into the lateral ventricle. Temperature was subnormal for twenty days, although there was a difference between the two sides, that of the right and paralyzed side being one and one-half to two degrees higher than that of the other.—(*Medical News*, Jan. 30, 1892.)

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B. M. CAPLES.

**DISTURBANCES OF EQUILIBRIUM IN TUMORS OF THE FRONTAL LOBE.**—Dr. L. Bruns reaches the following conclusions: 1. A disturbance of equilibrium, identical with the so-called cerebellar ataxia, occurs very frequently in tumors of the frontal lobes. 2. This symptom is certainly much rarer in tumors of other parts of the brain, and seems to be absent with considerable regularity in tumors of the Rolandic region. 3. The accompanying (pressure and irritation) symptoms will usually enable a diagnosis to be made between cerebellar and frontal tumors when ataxia is present. He reaches these conclusions after the study of four cases of his own and of the cases reported by Oppenheim, Bernhardt and others.—(*Deutsche Med. Wochens.*, No. 7, 1892.)

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G. J. KAUMHEIMER.

**ABSCESS IN THE MEDULLA.**—Abscess in the medulla is one of the rarest affections of the brain. Eisenlohr is in a posi-

tion to report two cases. Case one was that of a laborer, 43 years old. The patient was operated upon for empyema, May 12. June 6, another small, encapsulated empyema of the same side was opened. June 15, nine days later, he complained of stiffness of the left arm. The next day the arm and leg were paretic, with reduced sensation. No facial palsy. On the 17, the arm and hand were almost completely anæsthetic, with increase of the paralysis. Later the right side became involved, and patient died on June 18. There was at no time any sign of implication of the facial, hypoglossus, or ocular nerves. Autopsy showed in addition to the empyema cavity, a gangrenous cavity of the size of an apple in the left lung, at a level with the fifth rib anteriorly. On the left side of the floor of the fourth ventricle, in the region of the ala cinerea, a soft swelling was found. On section, an abscess as large as a pea, was found between the olives and the surface on the left side. Its walls were discolored. The entire section of the medulla was soft and gelatinous, its markings blurred. A section lower down showed that the cavity extended, through the posterior horn, to a level with the second cervical root. The gray matter and a part of the posterior columns throughout the cervical cord were remarkably soft. The second patient, a carpenter aged 25, was first seen June 27, 1891. The trouble had begun May 11 with headache, vomiting, delirium and stupor. Later two maniacal attacks occurred. On admission patient was delirious, with violent pain in head and back, sensitiveness of the spine, great emaciation and retraction of the abdomen. P. between 60 and 80; no fever nor paralyses. After a short period of improvement he became worse. The right pupil was widely dilated and stationary; the left moderately large and sluggish. July 5, deep stupor set in, with retraction of the head, slight tension of the muscles of the lower limbs, slight left facial palsy, and general hyperalgesia. On July 7, violent epileptiform spasms occurred. Death on the evening of July 7, with a rise of temperature, previously normal, to 39°C. The diagnosis made was epidemic cerebro-spinal meningitis, a light epidemic of which was prevailing at that time. Autopsy revealed a thin, grayish-white exudation over the cerebellum and pons. The third and lateral ventricles were dilated by slightly turbid fluid. The ependyma of the fourth ventricle was swollen. Section of the brain trunk showed uniformly a soft consistence and glistening appear-

ance at the level of the corpora quadrigemina, and close to the aquæduct, a small abscess was found. A fresh hemorrhage was found outside of the middle and upper dorsal dura. Bacteriological examination of case showed only short bacilli; of case 2, two varieties of stæptococci, besides various baccilli.—(*Deutsche Med. Wochensch.*, No. 6, 1892.)

G. J. KAUMHEIMER.

SCIRRHUS OF THE BRAIN SECONDARY TO THAT OF THE BREAST.—By Dr. Thomas Wilson.—Patient admitted to the hospital complaining of fits and left-sided paralysis. In Nov., 1886, patient had her left breast removed. Growth extended from the outer margin of the breast into the axilla. The axillary tumor could not be entirely removed at the time of operation. About the 1st of Jan., 1887, patient suddenly began to feel giddy and sick, and in two or three minutes lost consciousness. Five or six weeks later patient was wakened from sleep by feeling pricking in the left side of the mouth; got out of bed, and then twitchings began at the left angle of the mouth, followed by twitchings in the fingers and thumb of the left hand. She fell and her head turned to the left and bumped the floor spasmodically. This attack lasted over an hour, convulsions being almost entirely left-sided; no loss of consciousness. There was weakness of the left leg, left arm, and left angle of the mouth. The knee and radius jerks were active, greater on the left. There was well-marked ankle-clonus on the left side, none on the right. Necropsy showed the convulsions over the parietal and greater part of the frontal and occipital lobes on the right side to be markedly flattened. Over the whole left hemisphere there was considerable wasting of the convolutions with excess of fluid, and moderate amount of atheromatous degeneration in all the vessels at the base of the brain. The vertical transverse section through lower end of the fissure of Rolando cut through a tumor in the right hemisphere the size of a walnut, hard in consistence, and in marked contrast to the adjacent brain substance which was softened. The color of the section of the new growth was grayish-yellow, and there were numerous small hemorrhages and many small points of fatty degeneration. On its outer side the tumor involved the cortex for about an inch at one point, situated about an inch above the lower end of the fissure of Rolando, entirely replacing the gray matter. The growth was limited to the ascending parietal convolu-

tions, both of which it involved at their lower ends. The rest of this section of the right hemisphere showed white softening of the whole centrum ovale, and this change was found to extend forwards as far as the genu of the corpus callosum. The ventricles were distended with clear fluid and the ependyma thickened and opaque.—(*Lancet*, Feb. 27, 1892).

B. M. CAPLES.

CEREBRAL HEMORRHAGE.—Dr. Churton, of Leeds, read the notes of a case of Cerebral Hemorrhage before the Medical Society of London, Jan. 11, and demonstrated the anatomical conditions present by morbid specimens. Woman, aged 58; had right hemiplegia and hemianæsthesia without aphasia. On the 15th she felt a sudden numbness in the left leg; in about half an hour numbness in the right, which quickly, with the arm and face, became partially paralyzed. On the 25th left foot completely anæsthetic. Signs of femoral phlebitis on the right side; thigh was distinctly larger than the left. Reflexes: plantar, slight on right, brisk on left; patellar, sluggish on right, well marked on left. Hæmoptysis and other signs of pulmonary phlebitis appeared. Patient died Oct. 2. A clot was found in the outer part of left optic thalamus and fibers outside it, and a quite dry, dark-red clot of the size of a walnut in the posterior horn of the left lateral ventricle, also a dark clot in the right calloso-marginal fissure, overlying and slightly eroding the hinder part of the gyrus fornicatus. Arteries rather atheromatous. The bearing of this case upon the localization of tactile sensibility was discussed, and it was shown that there were no local conditions which could have caused the anæsthesia of the left foot. Author discussed four points in the case: 1. The occurrence of hemorrhage in two hemispheres almost simultaneously. 2. The association of femoral phlebitis. 3. The mode of formation of the dry clot in the left lateral ventricle. 4. Anæsthesia of the left foot, which appeared to be due to lesion of the left gyrus fornicatus, rather than the motor area, because no paralysis of the foot was observed; staining and slight erosion were seen upon the gyrus fornicatus, and none upon the convolutions above the clot. He knew of only one other case at all similar to this, and in this case a cyst was found in the right gyrus fornicatus extending into the quadrate lobule. He thought that the phlebitis and hem-

orrhage were due to a common cause—the circulation of some irritant in the blood.—(*Lancet*, Jan. 16, 1892).

B. M. CAPLES.

HEMORRHAGE INTO THE CORD.—Dr. G. J. Preston, in speaking of hemorrhage of the spinal cord, says it is necessary to distinguish between hemorrhage into the membranes and hemorrhage into the substance of the cord itself. So rare is hemorrhage into the cord, and so few have been the post-mortem examinations, that many neurologists deny the existence of such a condition. Patient in a few moments loses strength; if the hemorrhage be in the cervical region a more or less general paralysis occurs; if in the dorsal or lumbar region, paraplegia. There may be some hyperæsthesia, but this rapidly passes into anæsthesia, which corresponds to the segment of the cord involved. There is an absence, or at least there is very little of the spasmodic movements and muscular rigidity so characteristic of meningeal involvement. Respiratory and circulatory disturbances are the rule when the hemorrhage is in the upper cervical region. Reflexes likely to be slightly exaggerated, unless large areas of gray matter be involved, in which event they are abolished. He reports the case of a large, healthy-looking man, who, after walking a short distance felt a sudden dizziness with sharp pain in the cervical region, and he fell to the ground. Suffered more or less pain during the day; pain in the region of the seventh cervical vertebra was very sharp. On being picked up was entirely helpless. Marked loss of sensation, especially in the arms; slight stiffness of the neck. Patient is now regaining slight use of arms and legs. The sudden onset of the attack, the absolute paralysis and loss of sensation, the local pain—all point to hemorrhage into the cord.—(*Medical News*, Mar. 19, 1892.)

B. M. CAPLES.

CEREBRAL FEVER.—Dr. Hughlings Jackson in discussing this subject said he thought it depended upon secondary effects the clot produced in medulla centres. He thought that morbid changes were set up akin to those of optic neuritis. In a case of large cerebral hemorrhage it was convenient to distinguish several modes of action of the escaped blood. (1.) It destroyed tissue and thus produced such symptoms as hemiplegia; (2.) it caused shock—varying with the rates of its escape; (3.) according to its bulk it

squeezed and thus produced loss of consciousness; (4.) in its character as a "foreign body" it might produce encephalitis, and thereby, hypothetically, "cerebral fever," by changes induced in medulla centres; (5.) in some cases of cerebral hemorrhage, in which consciousness, if defective, had not been lost at the onset, delirium might occur, and he submitted that this was mainly a "return effect" upon the brain, a consequence of imperfect working of the respiratory and other organic systems, a state of things analogous to that in the delirium of some cases of emphysema and bronchitis, and in some cases of cervical fracture-dislocation of the spine.—(*Medical Record*, Apr. 16, 1892.)

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B. M. CAPLES.

BLINDNESS IN RELATION TO THE LESIONS OF THE OCCIPITAL LOBES.—Seppilli read a paper before the Seventh Congress of the Italian Freniatrial Society, Milan, Sept., 1891, in which, after noticing the rarity of simultaneous lesions of the two occipital lobes, he reported three cases of bilateral blindness after a destructive lesion in this region. In one of them the blindness occurred quickly on both sides after an epileptic attack. Referring to the possibility of confounding blindness due to an organic occipital lesion and that of an hysterical nature, he reported a case of hysterical amaurosis and showed that the history and the objective examination furnished sufficient data to avoid an error of diagnosis. The ophthalmoscopic appearances in two cases were negative. From the analysis and from the course and nature of the morbid symptoms observed he deduced the following conclusions:

(1.) Bilateral blindness may depend upon an affection of the occipital lobes.

(2.) Blindness occurring suddenly after an epileptic attack, and without other sensory or motor symptoms, may be referred to a lesion of the occipital lobes.

(3.) This local diagnosis has a certain value if active ophthalmoscopic findings coexist with persistence of the pupillary reflex.—(*Archivio Italiano per le Malattie Nervose*, Nov., 1891).

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H. M. BANNISTER.

THE DIFFERENCE BETWEEN PRIMARY AND SECONDARY DEGENERATIONS IN THE NERVOUS CENTRES.—Vassale, from experiments with dogs and rabbits (operated upon by section of the cord), by pathological observations in man, and

by rich material in the collections of the Instituto Psichiatrico of Reggio, has made numerous observations on primary and secondary degenerations of the nerves. He found in secondary degenerations a destructive process in both myelinic sheath and cylinder axis, agreeing with what had been already observed by Schiefferdecker and Homén. In primary degeneration there exists a chemical modification of the fibers, as shown by their less affinity for the bichromate. The atrophy of the myelinic sheath occurs later. Clinically he explains by these facts the tendency towards recovery observed in cases of primary degeneration. The lesion being a histo-chemical one, and the nerve fibers not being appreciably disintegrated when the toxic action is removed, they recover their normal functions, not having lost any of their anatomical structure.—(*Archivio Italiano per le Malattie Nervose*, Sept., 1891).

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H. M. BANNISTER.

ON TRANSFERRED SENSATION AND TRANSFERRED MOTOR IMPULSES.—In certain rare instances in nervous diseases sensory impressions and motor impulses are not felt and executed as in the normal state, but upon the opposite side of the body, or both sides. To this interesting condition Obersteiner has given the name *allochiria*. The first case was recorded by Brown-Séquard in 1863. A girl had received a stab wound at the right of the spinal column and presented the now well-known symptoms. After several months it was found that sensory impressions upon the lower extremities were regularly referred to the opposite side. Fischer reports a case in which the impression was felt on both limbs. Ferrier reports a case following head injury, which presented not only a sensory, but also gustatory and reflex *allochiria*. Feré reports a case of optic, and Gelle one of auditory *allochiria*. Only 11 cases can be found in literature, to which Dr. Weiss adds another. The patient was a tabetic woman of 54. There was found *allochiria* of touch, temperature and muscle sense, and a delayed *allochiria* for pain in both lower extremities.

This phenomenon may be found for one or all of the qualities of sensation and in the most diverse diseases. Thus Brown-Séquard found it in a lateral traumatism of the cord; Obersteiner in myelitis with secondary degeneration of the posterior columns in the lumbar cord; Huber in multiple sclerosis; Obersteiner and Feré in hysteria; Feré in

traumatic hemiplegia; Gelle in Menières disease, and Obersteiner, Fischer and Weiss in tabes.

The explanations of this phenomenon have been almost as numerous as the cases: Fischer assumes for one of his cases, in which the irritation was perceived only in the other limb, a vicarious action; for the other, in which it was felt in both, a distribution of irritation, as Woroschiloff has shown that the lateral columns carry fibers for both sides. Obersteiner seems to assume an action of the sympathetic system. Hammond explains Brown-Séguard's case as follows: The irritation, traveling centripetally, was blocked by the solution of continuity in the cervical cord and transferred to the opposite side by the commissural fibers. This, in the author's opinion, would explain all cases except Ferrier's, which was of cerebral origin. He is at a loss to explain this case. Huber explains the disappearance of the allochiria by assuming a new obstruction, in consequence of which the sensory impression is "switched" back to the side of the body to which it, by right, belongs. Weiss adopts a simpler explanation by assuming a partial, or complete restitutio ad integrum, as other symptoms will also disappear in tabes and sclerosis. As in the sensory sphere, allochiria may be found in the motor sphere. Thus Benet and Feré found the phenomenon in quite a few hysterical patients. Graeupner found it in a case of myelitis (this Journal, Vol. I.) In Ferrier's case, the right foot was withdrawn on tickling the left and vice versa: Weiss, in a case of symmetrical gangrene, observed an electro-motor allochiria. On irritating the biceps with a very strong faradic current for 2 to 5 seconds, a slow contraction of the opposite biceps occurred which became complete in from  $\frac{1}{2}$  to 2 seconds and was followed by an incomplete contraction of the irritated muscle. On removal of the electrodes tetanus subsided in 1 or 2 seconds. This condition lasted three weeks. Petrina and Senator have each observed allochiria in the face in an affection of the pons. Dr. Weiss is not able to arrive at a satisfactory explanation of the phenomena of motor allochiria.—(*Dr. M. Weiss, Wien. Med. Presse*, Nos. 46-48, 1892.)

G. J. KAUMHEIMER.

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A CASE OF PROGRESSIVE NEUROTIC MUSCULAR ATROPHY.—Prof. Ganghofner describes the case of a girl aged 12, who developed normally until the age of 4. At that age difficulty in walking set in, a strongly-marked paralytic

pes varus developed, with paralysis and emaciation of the muscles of the foot and leg. Later the muscles of the forearm and thigh became involved, although the latter were still able to act at the time of examination. There was muscular tremor and frequent twitchings in the hands and arms. R. D. was present in the atrophic muscles as well as in some acting normally. Sensation was slightly reduced on the extremities. Two brothers and one sister were similarly affected, three other children being healthy. Ganghofner believes this disease to be easily separated from Erb's dystrophia muscularis progressiva. Virchow, Friedreich and Dubreuilh have reported autopsies. An interstitial neuritis, with fatty and parenchymatous degeneration of the muscles being found. Virchow and Friedreich also found gray degeneration of the columns of Goll.—(*Prager Med. Wochenschr.* Nos. 49 and 50, 1891).

G. J. KAUMHEIMER.

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THE ARM PALSIES; THE DIAGNOSIS AND TREATMENT OF HEMIPLEGIA.—This is the subject of a clinical lecture by Dr. C. L. Dana.—Concerning brachial palsies the author divides them into three groups: 1. Those in which all, or nearly all the branches of the brachial plexus are involved. 2. Those involving chiefly the branches given off by the fifth and sixth cervical nerves, forming what is known as the "upper-arm type," or Erb's paralysis. 3. Those of the seventh and eighth cervical and the first dorsal nerves, forming the "lower-arm type." The causes of all these forms are much the same. They are: Obstetrical and other injuries, deep-seated inflammations and tumors, shoulder dislocations, primary neuritis, crutch and other forms of mechanical compression, functional palsies from over-work and hysteria. In rare cases, spinal-cord and brain disease. The symptoms vary with severity and extent of the lesion. In regard to the severity there are three degrees. In the first there is a simple transient palsy, due to lying upon the arm. The arm is said to be "asleep." In a few minutes or hours this palsy disappears and the feeling passes off. In the second degree the nerves are so much compressed as to be mechanically injured. In the third degree they are actually cut or torn, or so compressed as to lose their anatomical integrity. The resulting symptoms are those common to all nerve injuries, viz: paralysis, wasting, change in electrical reaction of the muscles. Pain, tender-

ness, anæsthesia, trophic, secretory and vaso-motor disturbances are also present in varying degrees. But the three most important symptoms to be analyzed are loss of power for elevation of the arm, and loss of ability to flex and extend the forearm. Flexion of the forearm is performed by the biceps and brachialis anticus assisted by the supinator longus. These muscles are supplied by the musculo-cutaneous nerve, except the supinator, which is supplied by the musculo-spiral. When a person cannot flex the forearm the musculo-cutaneous nerve, which is derived from the fifth and sixth cervical nerve-roots, is chiefly affected. The arms are extended by the triceps, which is supplied by the musculo-spiral from the fourth, fifth, sixth, seventh and eighth cervical roots. In raising the arm the deltoid acts first and most, but it can only raise the arm to a right angle. This muscle is supplied by the circumflex. After the arm is raised to a right angle it is further elevated by rotating the scapula, this being done chiefly by the middle part of the trapezius, and by the serratus magnus. The trapezius is supplied by the lower cervical and lower dorsal nerves; the serratus by the posterior thoracic. In studying these forms of paralysis it is impossible to determine whether one is dealing with a total arm-palsy, an upper-arm type, or a lower-arm type. In the upper-arm type (Erb's Palsy) there is involvement of the deltoid, biceps, brachialis anticus and the supinator longus, with, at times, paralysis of the supinator brevis, and even of all the muscles supplied by the median nerve. The lesion involves the central parts and upper cords of the plexus. The arm hangs by the side and the forearm cannot be flexed. In the *lower-arm type* the triceps, the flexors of the wrist, the pronators, the flexors and extensors of the fingers and the hand muscles are involved. The arm can be raised and the forearm flexed and supinated, but the hand is useless and the extension of the forearm is impossible. The lesion involves chiefly the nerves from the seventh and eighth cervical to the first dorsal. The treatment consists in electrical applications, mechanical support with potassium iodide internally, and abstinence from alcohol. Local injections of nitrate of strychnine are useful, and massage should be used if it can be applied carefully. In brachial palsies due to severe injuries, dislocations, fractures, etc., in which there is evidence, from the extreme atrophy and absence of electrical reaction, that the nerve is entirely cut

across and that the ends are not in apposition, a surgical operation is stringently needed. The nerve should be exposed and the ends brought as near together as possible. Decalcified bone-tubes or sterilized macaroni may be used to give passage for the central ends to grow into the peripheral. In these cases, however, it must be remembered that the two ends do not unite, but the central end grows down into the tract of the old degenerated peripheral stem.

HEMIPLEGIA.—The case is that of a man who was a hard drinker, and who had an attack of hemiplegia without loss of consciousness. The first attack passed off to be followed by another which was more severe. The question was, whether the lesion was one of hemorrhage or softening. As the attack came on without convulsions, as there was no marked disturbance of temperature and no evidence of shock, the inference is that there was no pouring out of blood into the brain. The tendency to recurrence also points to thrombosis or softening. The existence of an alcoholic habit, leading to chronic endarteritis, would also predispose to thrombosis. In hemorrhage we have initial shock, unconsciousness and convulsive phenomena. In hemorrhage we have also depression of temperature on the paralyzed side during the first few hours, and an elevation of temperature later on the paralyzed side. In acute softening there is no disturbance of temperature. In apoplexy the temperature should be taken in both axillæ. If the temperature is pretty even it is probable that we are dealing with acute softening. If there is an initial depression followed by rise it is probably hemorrhage. Thrombosis occurs usually after the sixty-fifth year; hemorrhage from the fortieth to the sixty-fifth.—(*International Clinics*, Jan., 1892.)

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THE ETIOLOGY OF PERIPHERAL FACIAL PALSY.—Prof. Bernhardt has observed 55 cases within the last  $2\frac{1}{2}$  years, 32 being males, 23 females. He considers these in connection with 57 cases reported previously. The majority of the patients were from 20 to 50 years old, 4 were respectively 1, 3, 4 and 5 years old, 3 were over 70. The seat of the trouble was the right side in about 55%, the left side in 45% of the cases. The presence or absence of pain was noted in 62 cases, pain being present in 32 cases of all grades of severity. Bernhardt believes that Testaz's

opinion as to the prognostic and diagnostic significance of pain must be received with reserve, as the agent causing paralysis of a motor nerve will act on a sensory nerve. The same is true of the theory of Gelle, who claims that facial palsy is very frequently due to affections of the ear. The four children mentioned had positively no ear disease. Gelle observed an otitis in 18 out of 25 cases of facial palsy during the influenza epidemic of 1889-90. Schwabach saw 3 cases of facial palsy in 411 cases of otitis. Katz, of Berlin, did not see a case of facial paralysis among 50 cases of otitis observed between Dec. 28, 1889, and Jan. 10, 1890. Schwartz saw only 8 cases in 686 cases of otitis. Heredity or nervous disposition is noted 18 times in 54 cases. In 2 cases diabetes was found, in 3 syphilis. Twice the affection had developed during childhood. Bernhardt cautions against accepting "catching cold" as the causative agent without the fullest investigation.—(*Berlin Klin. Wochens.*, Nos. 9-10, 1892).

G. J. KAUMHEIMER.

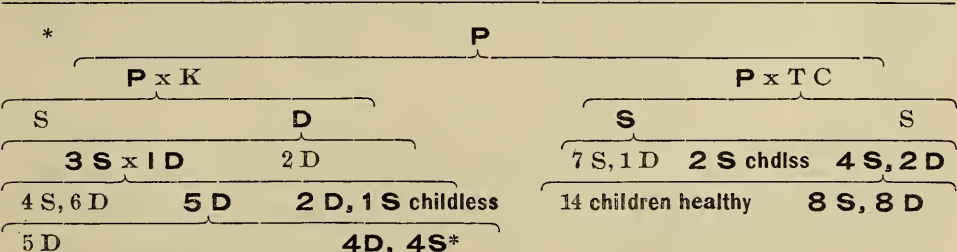
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THOMSEN'S DISEASE IN A PARAMYOTONIC FAMILY.—Dr. C. C. Delprat gives the history of two brothers, the subjects of Thomsen's disease, or myotonia congenita. In addition to this, they, with numerous other members of their family, are afflicted with a trouble which is distinct from Thomsen's disease. This consists of a temporary rigidity of the voluntary muscles of the face, arms, or legs, usually resulting from exposure to cold. It does not set in with voluntary motion, but is permanent and may last from half an hour to a day. If it involves the face, the eyes may be closed to such an extent as to make vision difficult. The tongue and mouth may be so rigid as to hinder speech. If it involves the hands, the fingers are half closed and are opened with the greatest difficulty. Not all members of the family are affected to a like degree and some escape altogether. In those subject to this trouble, it is usually present from birth. In several of the females, the trouble is said to have decreased after marriage. Pain or permanent paralysis never occurs, the "cramp," as its subject calls it, always ceasing upon prolonged exposure to warmth. A full meal or the use of alcohol diminishes its intensity. The two patients, 19 and 14 years of age, have been subject to the family disease since birth. Within the last 3 years they complain of a rigidity of the muscles upon setting them in action. This

rigidity disappears after using the muscles for some time. All the symptoms of Thomsen's disease are present rendering a detailed history superflous. The author gives the genealogy of the family for five generations.\* The first case known is Miss P., whose son by K, was exempt, her daughter was not. The son's descendants remained exempt. Of the daughter's six children (3 sons and 3 daughters) 3 sons and 1 daughter were subject to the trouble. Of their 18 descendants (5 males, 13 females) 4 sons and 6 daughters were exempt. Of these 8, 2 daughters and the son had no children. The other five females had 13 children (9 females, 4 males). Of these, 4 females and 4 males, including the subjects of the present sketch, had the trouble. Miss P. contracted a second marriage in which she bore two sons, one of whom was exempt. The diseased son's only son also had the trouble. Of the latter's 16 children (13 males, 3 females) 7 males and 1 female were exempt. The 2 females and 4 of the males not exempt had altogether 30 children, of whom 8 males and 8 females had the disease. It was never known to occur in the children of an exempt person. In fact one exempt male married his exempt cousin from the same branch of the family and his children showed no signs of the disorder. A member of the family by the second marriage, has been discovered to have Thomsen's disease. The mother of the subjects of the present sketch claims to have lost her trouble almost altogether after marriage.—*Deutsche Med. Wochensch*, No. 8, 1892.

G. J. KAUMHEIMER.

THOMSEN'S DISEASE.—Dr. L. D. Dana exhibited a male patient before the New York Neurological Association who presented the typical phenomena of this disease. The first symptom noticed had been a weakness of the muscles



which had come on at the age of seventeen. Three years subsequently it had been found that when the fists were closed they could not be opened again voluntarily for some time. Condition had increased until at the present time the only muscles not involved in the process were those of the thighs and upper-arms. The myotonia was most marked in the muscles of the forearms and legs. No sensory disturbances. Reflexes were nearly abolished, and could only be obtained by re-enforcement. Slight increase of reaction to the galvanic current, but not to the faradic. The author felt convinced from very careful tests of the muscles that the phenomena were confined to the muscles themselves and that it was not due to the reflex influence, but that the disease was a pure muscular one.—(*New York Med. Journal*, Feb. 6.)

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B. M. CAPLES.

PERIPHERAL NEURITIS, OR POSSIBLE LESION OF THE POSTERIOR NERVE ROOTS.—Dr. W. M. Leszynsky presented a patient before the New York Neurological Association, in whom neuritis of the brachial plexus had developed within a few days. Patient had been suffering from extreme pain and tenderness in the course of the median and musculo cutaneous nerves. No circumscribed paralysis, but general weakness of entire limb. Within two weeks the entire extremity had gradually reached a condition of complete anæsthesia including loss of muscular sense. Subsequently the adductor pollicis and the flexor longus pollicis had become paralyzed; this paralysis had disappeared, however, within ten days, and simultaneously there had been a restoration of all forms of sensibility including the muscular sense over the thenar group of muscles and the entire thumb, the rest of the limb remaining anæsthetic. He thought the diagnosis rested between a peripheral neuritis affecting the sensory nerve fibers, and a possible lesion of the posterior nerve roots.—*New York Med. Jour.*, Feb. 6, 1892.)

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B. M. CAPLES.

EXTENSIVE MUSCULAR SPASM.—Prof. Kahler demonstrated the case of a man, aet. 18, who had received a severe fright. Soon muscular spasm of the left side occurred, followed by the right. Three months after the fright he entered Kahler's clinic. The patient was lean, though muscular. A severe scoliosis and lordosis of the lumbar and dorsal spine

with the convexity to the right and front was found. The spinal muscles on the left side were contracted. The thorax was correspondingly deformed. Occasionally the deformity was so increased by the contraction that he resembled the "snake man." Spasm, usually clonic, sometimes tonic, of the muscles of the neck threw the head back. Similar spasms occurred in all the extremities, especially the right upper. There was no spasm of the facial, ocular or lingual muscles. These spasms were not rhythmic or symmetrical and were variable in intensity, although almost constantly present when patient was awake. During narcosis and sleep the spasms ceased. During narcosis the spine could be straightened. The spasms were increased by excitement or exertion. There was no other demonstrable abnormality of any organ. Kahler would classify this case with "tic convulsif", although it does not resemble the "maladie de tic" of Charcot and Guignon.—(*Wien. Med. Presse*, No. 51, 1891).

G. J. KAUMHEIMER.

CONVULSIONS PRODUCED BY "INTERMITTENS LARVATA."—Prof. v. Krafft-Ebing reports a very interesting case of epileptoid convulsions, occurring with and masking the paroxysms of intermittent fever. A. S., aet. 29, previously healthy, contracted malarial fever in 1886. Two years later, during an attack of fever, he fell and received a slight injury over the right mastoid process. After this, attacks attended with loss of consciousness and followed by stupor and delirium occurred with increasing frequency. Seven months after the injury he came under K.'s observation, claiming to have attacks daily. Observation showed them to occur every other day. There was usually some sort of an aura, then clonic convulsions for a few minutes, followed by stupor or violent delirium, or both. It was found that the temperature was usually raised after the fits, while it was frequently subnormal the next morning. The attacks ceased under a daily dose of one gm. of bisulphate of quinine, later reduced to half. Discharged April 1, having felt well for two weeks, but was re-admitted nine days later, the attacks occurring daily, but soon ceasing under large doses of quinine and Fowler's solution. Symptomatically the trouble can be classed as an epileptoid cerebral neurosis. Until the etiology became clear the case could have been easily confounded with traumatic epilepsy or with hysterio-epilepsy. It cannot be regarded as a simple febrile

delirium. It is interesting to note that the central nervous system was not affected until an injury to the head had occurred, which seems to have weakened the resistance of the brain to the toxic agent, as it often does in alcoholism and syphilis (and tuberculosis. K.).—(*Wien. Med. Presse*, No. 1, 1892).

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G. J. KAUMHEIMER.

SYRINGOMYELUS.—Drs. J. Hughlings Jackson and James Galloway report the following case: Patient aged forty-seven; stout, healthy-looking woman; no evidence of syphilitic disease nor of alcoholic over-indulgence. When twelve years of age suffered from a cut on the radial border of the extensor surface of the right forearm about two inches above the wrist. Twenty-two years ago, when pregnant, had an attack which she calls sun-stroke. Remained unconscious for two hours. After this attack observed that she was gradually losing sensation in the right arm and hand and on the right side of the body. Impairment of sensation increased, and there was loss of power in the forearm and hand, especially affecting the third, fourth and fifth digits. Fifteen years ago received a severe scald on right forearm. Attention was especially attracted to loss of sensation about this time. Has frequently burned the right arm, being unable to feel that water was too hot to wash in. Recently pinned her shawl into the skin of the right breast and was unaware of the injury inflicted until some time afterwards. Eight months ago while wringing clothes noticed a cracking sound in the right elbow. Compelled to stop work on account of pain in the joint. Same night right elbow swelled greatly, remaining large for many months. When admitted to hospital condition of right elbow exactly resembled that observed in Charcot's joint disease, but no signs of tabes dorsalis were discovered. Arm placed in splint. Fluid became absorbed; elbow diminished in size. The third, fourth and fifth digits on right hand are firmly flexed and contracted. The first and second digits show similar changes, but not to the same extent. Wasting of the thenar, hypothenar and interossei muscles is well marked. Muscles of the affected side react to interrupted current. Over an area including the front and back of right upper extremity, right side of scalp, face and neck, and right side of trunk to about the level of the tenth dorsal vertebra, there exists marked alteration in sensation.

Patient cannot distinguish between heat and cold owing to this reason. Sensation of the mucous membrane of the right side of the tongue, mouth, palate and fauces is affected in a similar manner to that of the body. Sense of smell less acute in right than in left nostril. Diminution of taste on right side of tongue. Sense of sight and hearing normal. Author thinks it important to observe that the early signs before marked degenerative changes in the cord supervene, consist of the loss of sensation to pain and of the power of distinguishing between heat and cold, while the ordinary contact sensation remains practically intact. This is of interest as, so far as is known at present, the conducting tracts for painful sensations exist in the lateral columns, while the degenerative changes, which result from the increased growth or necrosis of the neuroglia mass, are shown most prominently in the posterior columns and in the gray substance of the cord.—(*Lancet*, Feb. 20, 1892.)

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B. M. CAPLES.

THE PATHOLOGICAL ANATOMY OF EXOPHTHALMIC GOITRE.—Mendel reviews the latest published autopsies. Eleven cases have been reported, six showing no alteration in the nervous system. Cheadle found changes in the olives and dilatation of vessels in the cervical cord; Waekner, dilatation of vessels and obliteration of the central canal; Drummond found the lower cervical ganglion adherent to its surroundings; Hopfengärtner, considerable shrinking of the right sympathetic and absence of the second cervical ganglion; White, hemorrhages into the medulla, extending into the restiform bodies. Mendel adds to these a case in which the sympathetic was normal. The only change in the nervous system found upon minute microscopical examination, was a thinning of the left restiform body, whose fibers seemed to be fewer in number than those of the right side, and a decided atrophy of the solitary bundle on the right side. The vagus, accessory and glossopharyngeal nuclei were normal. Filehne, Durdufi and Bienfait have shown that in various animals, section or removal of the restiform bodies produced tachycardia and hyperæmia of the head, ear and thyroid gland. In 37% of Bienfait's animals exophthalmos resulted. A physiological connection between the changes and the symptoms observed it is at present impossible to trace. However, M. believes that the fact that decided changes in the nervous system do occur

should make us cautious in adopting the severe surgical methods proposed.—(*Deutsche Med. Wochensch.*, No. 5, 1892).

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G. J. KAUMHEIMER.

CACHEXIA STRUMIPRIVA.—Vassale (at the Seventh Congress of the Italian Freniatrial Society, Milan, Sept., 1891), reported experiments by himself to further investigate the physiological action of intra-venous injection of the juice of the thyroid gland in dogs from which it had been removed; second, to study the effects upon these animals of the injection of other substances that have an action upon tissue change, such as urea; third, to determine what effect fasting has upon the syndrome of experimental cachexia strumipriva. The results of his experiments are as follows: (1.) That the thyroid juice injected into the peritoneal cavity of dogs from which the thyroid has been removed, acts much as when injected into the blood, but less promptly and decidedly. The thyroid juice loses its properties in part, or totally, by boiling, but retains them for some time if mixed with glycerine. The intra-venous injection of extracts from the brain, from the testicle, or the serum of the blood, was followed by no such effects as observed after intra-venous injection of thyroid juice. The animal, a little after the injection of the latter, drinks a large quantity of water, passes a great quantity of urine, and then recovers its normal condition. It appears thus to wash out toxic substances from the system which would otherwise accumulate, and which it appears that the thyroid juice does not neutralize, but transforms into some easily eliminated substances. There are, of course, some transient symptoms, which only become permanent in certain cases in which other viscera act vicariously, or, what is more probable, where there exist and come into action accessory thyroids.

(2.) Urea, either by subcutaneous or intra-venous injection, has a beneficial action. This action, however, is not comparable with that of the thyroid juice; it is much more transient and frequently all the symptoms do not disappear from one injection to the other. As regards the action of urea, the authors having made other experiments with nitrate of potash, uric acid, etc., are inclined to believe that its action is not simply diuretic, but is more complex and connected with altered conditions of tissue change, which are favorably affected by addition of this substance to the blood.

(3.) That fasting modifies the phenomena of cachexia strumipriva. The phenomena of tetanus occur in fasting dogs more quickly than in those which have not been deprived of food after thyroidectomy, but are ordinarily much lighter and pass away more quickly, giving place usually to the phenomena of simple cachexia.

The author reviews the various theories that have been proposed to explain the evil effects of thyroidectomy. His own experiments favor the secretory theory, according to which the thyroid glands have the function of preventing an auto-intoxication, either by transforming the toxic products of tissue change into substances easily eliminated, or by directly neutralizing them by its own secretion.—(*Archivio Italiano per le Malattie Nervose*, Nov., 1891).

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H. M. BANNISTER.

TOPIC-DIAGNOSTIC RELATIONS OF UNILATERAL IMMOBILITY OF THE PUPIL.—Dr. Lyder Borthen describes the case of a 37-year-old sailor who presented a unilateral immobility of the pupil. Nineteen years before he had had a hard chancre which was followed by secondary symptoms. About three years before, while out on a skating expedition, he noticed a dilatation of his left pupil. The last two years he has experienced a feeling not easily described, as of giddiness. This sensation, together with headache, comes on at every exertion as well as when he uses alcoholic drinks, which he now uses but little and bears badly; otherwise he feels entirely well. Accommodation was found normal; the left pupil dilated; diameter about 4.5 mm.; right pupil about 2 mm. with clear daylight. On allowing light to fall into the left eye there was no responsive contraction; contraction by convergence and accommodation present, but very slow. When the normal eye is covered the left pupil contracts down to a diameter of 3 mm. Reaction of the right eye present, but reduced in the left. The writer then discusses the explanation of this condition. It may be due to an affection of the nucleus, a diseased state of Meynert's fibers and the fibers connecting the two nuclei of the oculomotorius, or spinal irritation. By exclusion it may well be assumed that in this case the condition in question is a nuclear affection. This assumption is supported by the following statement of Wernicke: "Disease of the centres of the motor oculi is only indicated by the absence or weakening of the contraction of the pupil which appears on forced

convergence." In this case contraction took place under that condition, but it was very slow. As to the prognosis, it is certainly unfavorable. Although here there is no "syphilitic paralysis of accommodation," combined with mydriasis, which gives no hope of permanent improvement and is often the forerunner of psychic disturbances (Alexander: Uebereinseitige Accommodationslaehmung auf syphilitischer Basis), yet this permanent syphilitic mydriasis indicates nothing good. Whether tabes dorsalis or progressive paralysis will follow, is a question which can not be settled by the eye symptoms. (Hirschberg: Ophthalmosemiotik bei progressiver Paralyse und Tabes dorsalis). Future psychic disturbances are possible, as are indicated by the indefinite feeling of giddiness and his easily tiring from mental work. How long such a state can persist is, of course, impossible to say, yet perhaps several years. (There also appeared a work in the Danish language upon the condition of the pupil in its physiological and pathological relations, written by Dr. Harald Philipsen, and appearing in the *Hospitals-Tidende*, 1892.)

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FRANK H. PRITCHARD.

REPORT OF A CASE OF TONIC SPASM OF ACCOMMODATION.—By Dr. Francis Valk.—The author says, in looking over his note book he does not find a case of true tonic spasms of accommodation except the present. Patient had had an attack of paresis on the left side with diplopia. Could read very well, but felt tired and sleepy when doing so. Distant vision is not good. Streets appear contracted like long lanes. Examination by retinoscopy showed myopic astigmatism in each eye. Eyes sensitive to light. Ordered a four-grain solution of atropine to be used four times a day. This was continuously used from February till July 10. During this course of treatment he was given strychnine in small doses for a month, and twice the temples were leeches. The doctor wishes to call attention to the use of the atropine as the effect was so marked and relief and final result interesting. At last examination patient was perfectly comfortable; vision normal; a good region of accommodation and now uses his glasses only for reading.—(*New York Med. Jour.*, Apr. 9, 1892.)

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B. M. CAPLES.

HEREDITARY CHOREA, WITH A REPORT OF THREE CASES AND DETAILS OF AUTOPSY.—Dr. Wharton Sinkler says the

disease does not occur until middle life, beginning at about thirty-five years of age, and is essentially chronic. It never gets well, although there may be periods of relief; as a rule, it steadily grows worse until the death of the patient. In the first case reported, patient was about forty-eight when choreic movements began in the hand. The movements gradually increased in extent, involving the whole body. There is continual twitching, and movements are greatly exaggerated by any excitement. During sleep cease entirely. Speech is affected; all cutaneous reflexes increased; no pain; no impairment of sensation; mind somewhat affected. Second case: Slight spasmodic inco-ordinate movements of both hands and feet; gait characteristic; is able to walk five or six steps in a deliberate fashion, she then takes a long stride with one foot and brings up the other in a studied and measured way. This is repeated. All voluntary efforts are slow and labored. Reflexes are everywhere exaggerated; sensation everywhere good; no loss of motor power. Case three: Patient's father began to show spasmodic movements of the head and extremities when he was forty years of age. When twenty-nine years of age patient noticed a stiffness in his arms and hands, so marked that he could not work with his usual ease. The arms, head and trunk are in continual movement, greater on the left side. Step measured and slow. No loss of power or sensation. Knee-jerk and all other reflexes increased. The author says mental disease occurs in most cases where patients are affected with hereditary chorea. In some, the mental disturbance does not begin until the individual has been choreic for several years, but in others the insanity and chorea begin at the same time. From a study of the cases now on record he has come to the conclusion that there are two forms of hereditary chorea, one in which the irregular muscular movements begin first, and the other in which the mental disease begins before, or simultaneously with the chorea. Autopsy in case of hereditary chorea showed the skull-cap extremely thick and the diploë absent; the dura adherent in places, and was thick and tough. Meninges congested, and there was considerable œdema. Membranes of the cord were congested and to a small extent adherent. Microscopically the posterior columns were normal, except possibly a slight increase of connective tissue in spots. In the remainder of the white matter there was considerable increase in the connective tissue. Walls of the blood-vessels

thickened, many axis-cylinders were missing, but never enough to completely cut off the tract. The region of the central canal was largely occupied by a mass of nuclear tissue similar to that found in normal cords, but the mass was far larger than usual, and stains much more deeply in the cervical region. The canal itself was quite large and irregular; in the dorsal and lumbar regions small, and in one section showed as two canals. A striking feature in the histories of these cases is the marked neurotic taint through their families. Insanity, epilepsy, intemperance and vice are prevalent in the family histories. The author arrives at the following conclusions: "Hereditary chorea, while resembling in many respects Sydenham's chorea, differs in so many of its features that it is essentially a distinct and separate affection; that while, as a rule, there is remarkable uniformity in the symptoms presented, there may be variations. That it is not an invariable rule that if the disease fails to appear in one branch of the family the descendants of that branch have immunity. That the arrest of the movements by voluntary effort is not a distinguishing feature of hereditary chorea, as in some cases voluntary effort aggravates the movements, and there are many cases of Sydenham's chorea in which voluntary effort arrests the movement for a time. That chorea among the adult insane is a different affection from hereditary chorea with insanity. That the evidence we have indicates that the pathology of the disease is a degeneration of imperfectly developed cells in the motor tract or in the cerebral cortex, and in the spinal cord. The occurrence of the disease at an early age in children of some of the cases recorded is confirmatory of this view."—(*British Medical Journal*, Mar. 12, 1892.)

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B. M. CAPLES.

CLINICAL ASPECTS OF CHOREA.—Dr. Landon Carter Gray lectured upon this subject before the New York Polyclinic Class. His first patient was a little girl suffering from Sydenham's chorea, the characteristic movements of which consist of quickly beginning and quickly ending jerks of a fibrillary character. Generally the fibrillæ affected are so far beyond control of the will that it is impossible to simulate their movement. Thus, although one may simulate the movement of the wrist joint, it would be impossible to simulate those movements of the individual fibrillæ of the interossei muscles and others which are found in such cases.

In order to obtain this fibrillary action you must take the patient's hand or foot in yours to observe the action of the trunk muscles. In other cases shown, the fibrillary movements were so slight that they could only be felt, but not seen. This condition may be the only means at our disposal for diagnosis. In athetoid chorea the movement is a combination of the chorea movement and the worm-like movement of athetosis. In some cases of chorea there may be a predominance of paretic symptoms. The legs may be dragged and the patient may be considered paralyzed, but the fibrillary twitchings will indicate chorea. This form of chorea usually runs a course of from six to ten weeks, but it may develop into a more severe form when it is impossible to keep the patient in bed, or upright in a chair. In some cases of this type of chorea there may be convulsions. Usually they consist of a slight tendency to unconsciousness with or without a slight spasm. Sometimes they are harmless; again they indicate a development of encephalitis of the choreic variety and may end in death. If the child has had convulsions in previous attacks, and the characteristic movements do not tend to become more exaggerated, the chances are that the convulsions will prove harmless, but if they become more severe and the movements more marked, and the child shows a tendency to hebetude, headache and delirium, the case will probably end in death. There is a form of chorea associated with articular rheumatism which is very severe. Its clinical history is usually as follows: "A little child, who may have had a harmless chorea at some previous time, suddenly has some evidence of articular rheumatism—so slight, perhaps, that the attending physician is in doubt as to whether there has been really an articular rheumatism, inasmuch as the symptoms of the latter may last only a few hours. Then the choreic twitch is noticed, and the physician is very apt to say that the case will get well; that there is nothing more to be done. But you will usually find associated with this choreic twitch a rapid pulse and a rapid respiration, for which auscultation of the heart and lungs will give you no cause. As days go by you notice that the chorea becomes more marked—in other words, you will see that there is a tendency to development in this chorea, and, as the chorea develops, the rapid pulse and rapid respiration become more rapid, and the danger lies rather in these two latter symptoms than in the chorea. You may check the chorea; you

may, as I have known physicians do, send the patient to the country for a change of air, and the chorea may disappear, or become much better, but the pulse and respiration will go on increasing in rapidity, and the child will die, and before death you will find a pericarditis or an endocarditis. You should, therefore, be on your guard when you are dealing with a case of chorea of this kind. I think the recoveries are very rare. I myself have never known one that did not die, and my prognosis would always be to that effect." The various forms of chorea may be tabulated as follows: Sydenham's and athetoid chorea, with or without a tendency to development. Violent chorea. Chorea with convulsions. 1. Harmless; 2. Fatal. Chorea with rapid pulse and respiration. Chorea of pregnancy. Electric chorea. In the electric variety of chorea the jerks are rapid like the rapid muscular movement produced by quickly interrupted electricity. This is a very intractable form of chorea. Briefly, the author's treatment for chorea is arsenic and iron, rest, good food, sunshine and fresh air. The author concludes as follows: "By means of the iron, the arsenic, rest, food, sunshine and fresh air, I carry my patient along until the movements have become as slight as in those cases of so-called cures which I have shown you here in the clinic. I then cease the administration of drugs, using, perhaps, small doses of cod-liver oil in the colder months of the year. Usually, however, I use no medicine after I have discontinued the arsenic and the iron. In some cases I have found galvanism, applied to the spinal cord every second day for several weeks, to be of great use. I use a current of three to five milliamperes, employing two large electrodes, placing one upon the occiput and the other upon the lower dorsal vertebræ, and turn the current on and off very gradually by means of a current regulator rheostat. But in all cases I am very sedulous to restrict the expenditure of energy for months after the medicinal treatment has ceased. You should understand that all those choreic children are expending physical and mental energy in large amount. I have never yet known a fool of a child to have chorea: indeed it is rather a compliment to the mental stature of a child to know that it has chorea. The relapses are usually treated upon the same plan of rest and medicaments, although they do not usually require so long a treatment. I always warn the parents of choreic patients to watch them carefully in the spring and fall of the year, and bring them to me

promptly upon the appearance of any movements; and by this warning I insure the child's welfare and prevent the parents from becoming discouraged at the appearance of what may seem to them like another attack of the dreaded disease."—(*International Clinics*, Jan., 1892).

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SCLEROSIS "EN PLAQUE" FROM VARIOLA.—Dr. M. J. Sat-tas (*Gaz. des Hop.*, April 12, 1892) reports a case of "sclerose en plaque" in an 18-year-old boy, which occurred in the convalescence from variola. The nervous phenomena were shown with unusual interest during the course of the variola. The patient was not of neurotic antecedents nor had he exhibited any previous nervous symptoms.

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J. G. KIERNAN.

SEVERE ORGANIC BRAIN DISEASE FOLLOWING INFLUENZA.—A large number of functional nervous disorders following influenza have been reported. The organic brain troubles reported with autopsy have so far been few in number. Ziemssen (3d edition, 1886) gives an extremely fragmentary account of these complications. A number of cases have, however, been reported during the last few years. Für-bringer reports two cases of hemorrhagic encephalitis observed last winter. In one case there was found in each hemisphere a hemorrhagic focus as large as an egg. Besides this, there were in both cases, as well as one reported by Virchow and Senator, innumerable miliary hemor-rhages. Both these cases had set in with the ordinary symp-toms of influenza, which were succeeded by a short period of comparative well-being, when the cephalic symptoms set in suddenly. Two cases of purulent meningitis with au-topsies were then discussed, followed by two cases which presented very severe cerebral symptoms, but which recovered.—(*Prof. Fürbringer, Deutsche Med. Wochensch.*, No. 3, 1892).

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G. J. KAUMHEIMER.

A NEW CASE OF ACUTE HEMORRHAGIC ENCEPHALITIS, OCCURRING DURING AN EPIDEMIC OF INFLUENZA.—It is only lately that attention has been called to this condition which heretofore has been slighted in the text books. This trouble may occur in epidemic cerebrospinal meningitis, ulcerative endocarditis, influenza, scarlatina and as an independent disorder. It is, on the whole, so rare that each new case is

of interest. The case reported by Koenigsdorf is that of a healthy girl aged 21, who was ill with only general symptoms of varying intensity for 4 days. Then coma suddenly set in with abolition of reflexes and symptoms which pointed to a severe lesion of the brain, without allowing any deduction as to its nature. Death occurred on the eighth day. Autopsy showed thrombosis of the transverse sinus and one of the larger pial veins at the base, the latter to the extent of 10 cm. Brain substance soft, especially on the left side. Ventricles normal in size, their walls dotted with punctiform hemorrhages. The white substance, internal capsule and thalamus were of a diffuse pale lemon yellow color, with numerous punctiform hemorrhages. The lower part of the corpus callosum and the nucleus caudatus were likewise dotted with them. In the left thalamus a focus of hemorrhagic softening as large as a walnut was found. Another spot, not so far advanced, was found in the posterior part of the left nucleus caudatus. The central ganglia on the right side, the basal ganglia, cortex, cerebellum and pons were normal. Microscopical examinations of a portion of the left thalamus showed a general infiltration with small round cells, the hemorrhages were not sharply defined, nervous elements normal, no micro-organisms. The author classes this case as primary, as endocardium and meninges were normal.—(*Dr. Koenigsdorf, Deutsche Med. Wochensh.*, No. 9, 1892.)

G. J. KAUMHEIMER.

LEG AND BLADDER PARESIS SECONDARY TO "GRIP."—Dr. Ch. Liegeois recalls (*Prog. Med.*, Mch. 19, 1892) that Rayer in 1837 had observed paraplegias of 24 to 48 hours' duration, which Bergeron referred to the class of amyotrophic paralyses. Liegeois reports the case of a 27-year-old man, who, after an attack of "grip," complained of lightning-like pains in the dorso-lumbar region, extending down the thighs to the feet. Two days thereafter he had great loss of power in the lower extremities followed in turn by vesical paresis. The leg paresis lasted 15 and the bladder paresis 20 days. The patient had indulged to excess in horse riding, and to this Dr. Liegeois refers the localization of the symptoms.

J. G. KIERNAN.

CEREBRAL HEMIPLEGIA FOLLOWING DIPHTHERIA IN A CHILD.—The patient, aged 7, passed through a mild attack

of diphtheria in a week. On the 12th day a nephritis was detected. Nasal speech and difficulty of deglutition had existed since the 8th day. On the 20th day tonic-clonic convulsions set in, followed in 24 hours by left hemiplegia with aphasia. Recovery was almost complete within six months by the use of galvanism and faradism. The main interest of the case lies in its etiology. The author assumes that the vascular changes produced by the diphtheritic virus were responsible for the apoplexy, possibly aided by a cardiac hypertrophy due to the nephritis. True diphtheritic paralysis of an apoplectiform nature is extremely rare. Jacobi, in Gerhard's work on Diseases of Children, says; "Permanent paralysis is said to occur, but I have never seen a case." Ziemssen (Clinical Lectures IV, 1) states: "Such cases (apoplectiform onset) are very rare as compared to the typical picture of diphtheritic paralysis, and even very experienced physicians are not likely to see them." He also states that Mendel has observed several immediately fatal cases of cerebral hemorrhage following diphtheria.—(Dr. S. Auerbach, *Deutsche Med. Wochenschr.*, No. 8, 1892).

G. J. KAUMHEIMER.

A CASE OF GRAVE DIPHTHERITIC PARALYSIS.—Dr. Don Baltasar H. Briz communicates the case of a child, three years of age, who was attacked with diphtheria in a grave form. Anti-diphtheritic treatment was employed and in three weeks the throat cleared up, the glands became reduced in size, and albumen, which had been present in the urine, disappeared, leaving the child apparently on the road to an uneventful recovery. Three weeks after this, the father of the child remarked that it had great difficulty in speaking, and that fluids, after drinking, came back through its nose. A slight paralysis of the palate was diagnosticated and the tincture of *nux vomica* prescribed as a tonic. A few days later he was called and found paralysis of the *velum palati*, fluids regurgitated, the saliva choked it, any liquid would give it a violent cough, it could not lift its head, it could not stand erect, its arms were moved with great difficulty. Respiration was superficial and had a Cheynes-Stokes rhythm; the pulse was slow and the child's skin cold on contact. The tincture of *nux vomica* was administered together with cognac and coffee; enemas of warm milk with quinine were given. The next morning the condition of the patient had improved somewhat. The *nux vomica* was continued in

doses of six drops per diem, tonics, the iodine of iron in syrup, the wine of phosphated peptone and milk and nutritive broths were administered. This condition kept up for four days, when the nux vomica was increased by one drop, after which the child improved more rapidly. The paralysis of the muscles of the neck disappeared first, its speech became clearer, the liquids did not return through the nose, and a few days after it could stand well on its feet. Henoch puts great confidence in strychnine in the treatment of diphtheritic paralysis, claiming that it will even ward off respiratory and cardiac paralysis. He also depends upon electricity.—(*Revista Clinica de Los Hospitales*, Dec., 1891.)

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FRANK H. PRITCHARD.

CHANGES IN THE NERVES IN ALCOHOLIC PARALYSIS.—Prof. Rummo has examined two cases of this sort. Case 1, of long duration, showed paralysis of lower extremities with moderate R. D. The right anterior tibial nerve, excised during life, showed an exquisite parenchymatous neuritis, ending in atrophy of both sheath and cylinder. The nerves of the upper extremity were involved to a very slight degree. The spinal cord, the roots of the spinal nerves and the cranial nerves were normal. The muscles of the lower extremities showed atrophy of some fibers, with loss of markings, while other fibers showed granular and fatty degeneration with proliferation of the nuclei of the sarcolemma and the interstitial connective tissue. In the second case, commencing diffuse sclerosis of the white substance of the hemispheres was found, as well as a large number of miliary aneurysms and miliary apoplexies resulting from them. From the latter, patches of fibrous tissue had developed. In the pons, a slight increase of the neuroglia was found in the right anterior column, a little above the pyramidal decussation. The pons was otherwise normal as well as the cord. The peripheral nerves showed but few degenerated fibers, but a slight increase of connective tissue and a very general peri- and endarteritis.—(*Wien Med. Wochensch*, No. 42, 1891).

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G. J. KAUMHEIMER.

The following are from the report of the proceedings of the Seventh Annual Congress of the Societa Freniatrica Italiano, as reported in *Archivio Italiano*, XXVIII., fasc. V. and VI., Sept. and Nov., 1891):

ALTERATIONS OF THE PERIPHERAL NERVE IN GENERAL PARALYSIS IN RELATION TO THEIR CENTRAL NUCLEI OF ORIGIN.—Colella has sought in this investigation to ascertain: (1.) Whether in general paralysis, which is characterized by such notable motor disorders, we can not find in the motor nerves more marked lesions than in the sensory and mixed ones, which may have a certain causal relation with these disorders. (2.) To find out whether, in the central nuclei of origin both of the cranial and spinal nerves, the alterations correspond in their nature, in their degree, and in their diffusion with those of the sensory and motor peripheral nerves, or whether the lesions of the nerve trunks do not induce the admission of the existence of a peripheral neuritis, to which can be assigned a new importance in the physiological pathology of paresis. The careful examination of seven patients that died of paralytic dementia led to the following conclusions: (1.) The histo-pathological alterations met with in the cutaneous and inter-muscular nerves, as well as in the spinal and cranial nerve trunks, consisted in a parenchymatous neuritis of peripheral origin. In the various spinal nerve bundles, whether motor, or sensory, or mixed, not only the respective trophic centres (anterior cornua and inter-vertebral ganglia) presented no appreciable lesions, but also the anterior roots, and that portion of the posterior root comprised between the spinal ganglion and the coalescence of the anterior root, had a normal appearance. In the cranial, sensory and motor nerves (vagus, glosso-pharyngeal, facial and motor-oculi) the lesions were not generally proportional in degree and diffusion with those of the corresponding root fibers, and of the respective central nuclei in the bulb, in the pons and mesencephalon. (2.) The intensity of this peripheral neuritis is in direct ratio with its distance from the nerve centres, and therefore in the trunks of both spinal and cranial nerves it is less in degree and extent than in the corresponding terminal sensory or motor fibers. (3.) Both the cutaneous branches and inter-muscular fibers are affected. But the two systems are not involved to the same degree and extent in the same subject, and in different cases one or the other appears constantly the most affected. Probably between the lesions of the peripheral nerves developing by themselves and those of the cord progressing simultaneously, there exists, if not a relation of causality, a certain degree of homology. (4.) We can, with great prob-

ability, attribute the unequal distribution of the lesions of the cutaneous and muscular systems, and the different clinical and anatomical appearances of the neuritis in paralytics, to various etiological conditions (alcoholism, syphilis, etc.) and to the various complications of the morbid processes (tuberculosis, etc.). Whether, nevertheless, this peripheral neuritis depends at the same time upon the paralysis and upon the complications, it is rather difficult in the present state of our knowledge to determine what part should be attributed to one or the other of these. (5.) It appears that this degenerative paresis is a constant accompaniment of progressive paralysis. The mode of its production is unknown, but since the histo-pathological investigations show that the lesions are greater in the terminal branches than in the nerve trunks, it does not seem too bold to assume (though with considerable reserve) a special process acting centripetally along the nerve fibers (ascending neuritis). We may certainly seek in these lesions of the cutaneous and muscular nerves for the pathology, to a large extent, of the various clinical forms that may be presented by paretic dementia, and a generic relation between this primary alteration of the peripheral nervous system and the trophic disturbances of the skin and lungs, so frequent and fatal in paresis, seems undeniable.

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H. M. BANNISTER.

PARESIS IN SOUTHERN ITALY.—Roscioli, from a study of 125 cases observed in the asylum of Noceral, in the years 1882 to 1890, finds that paralysis is gradually increasing among men and rare and stationary in women. That it occurs most frequently between the ages of 40 and 50, and that it is also most frequent in the artisan class, though not unknown among the agricultural population, and that the provinces in which it is most prevalent are those of Bari and Salerno. It appeared that the psychic symptoms antedated the bodily ones. As regards causes, heredity appears to be the most frequent, then come syphilis, traumatism, intemperance, misfortunes, etc. From his observations he was led to believe that paresis is an eminently degenerative disease, the degeneracy being most frequently congenital, from heredity. It may be acquired, however, from syphilis, traumatism, alcoholism, etc., these concurring in the production of the disease by diminishing the organic resistance of the individual.

H. M. BANNISTER.

ON CHANGES PRODUCED IN THE NERVOUS SYSTEM BY SYPHILIS AND THE PATHOGENESIS OF TABES.—Dr. G. Marenisco reaches the following conclusions: 1. The vascular changes found in syphilis are, in part, inflammatory, being related to the arteritis described by Heubner; and partly degenerative, consisting of a hyaline thickening of the vessel wall with partial obliteration of its lumen. 2. The changes in the nervous tissues are sometimes due to the vessel changes, sometimes directly to the action of the specific virus. The former are secondary, the latter primary. 3. The primary degenerations are always found in the columns of Goll. They generally involve the entire posterior column in the order given by Flechsig and Charcot. 4. This form of syphilitic tabes is purely degenerative and presents no peculiarities; it may be produced by other toxic agents. We might speak of the syphilitic form as the most frequent variety of toxic tabes. 5. It is probable, that the degeneration of the nerve fibers is due to a primary disturbance of the centres. This is not directly proven in regard to syphilis, but is known to be true in regard to other toxic agents. 6. Besides the degenerative form, there is anatomically demonstrable, a hyperplastic form of specific tabes, which may end in recovery.—(*Wien. Med. Wochensch.*, Nos. 51–52, 1891.)

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G. J. KAUMHEIMER.

GLYCOSURIC, OR TRUE TABES.—Drs. Guinon and Souques, (*Archives de Neurologie*, March, 1892), state that in a glycosuric case if the nervous symptoms be limited to loss of the reflexes, fulgurant pains and loss of objective sensation, true tabes may be suspected, but is not demonstrated beyond doubt. Results of antiglycosuric treatment may aid, but not render certain, the diagnosis, since Westphal's symptom in diabetic cases is the last to yield to treatment. If it yield to treatment the presumption is in favor of diabetic pseudotabes. If glycosuria result in an ataxic case, then the absence of polyuria, variability of the amount of sugar, and absence of polyphagia and polydipsia, are in favor of a tabetic origin, especially if anæsthesia, frequent pulse and laryngeal crisis be present. If these last symptoms be absent the chances are in favor of diabetes, especially if the usual symptoms of diabetes be present. Diabetes may, however, complicate locomotor ataxia.

J. G. KIERNAN.

PRE-ATAXIC TABES DORSALIS WITH OPTIC-NERVE ATROPHY.—Dr. Howell T. Pershing reports the following case: Printer; syphilitic; for three years past he has had an annoying tremor during effort or excitement; vision began to fail in left eye during 1889 and grew worse until Jan., 1890, when vision in right eye also became much impaired; left seemed to improve. Transient ptosis on the left side was noticed several times; knee-jerks found absent Nov., 1889; potency was lost soon after failure of vision. Could read with right eye up to June, 1890, when atropine was instilled, causing immediate loss of power to read, which did not return. During the summer and fall of 1890 had shooting pains in legs, and occasional retention or involuntary evacuation of urine. Nov., 1890, can barely see a hand close to face; light reflex scarcely perceptible; white atrophy of both optic discs; knee-jerks entirely absent; plantar and cremasteric reflexes present; no ataxia of arms or legs; reflexes heightened in pharynx and larynx (laryngeal crisis). Reported a second case. The striking feature about each of these cases is the presence of decided atrophy of the optic nerve with the absence of ataxia. The spinal symptoms were so unobtrusive that both patients sought relief only for failing sight. It has long been known that optic atrophy may for years precede other symptoms of tabes. If optic nerve atrophy develops, the spinal symptoms in most cases remain stationary. The preponderance in the non-ataxic cases is evidently too great to be accidental.—(*Medical News*, Mar. 26, 1892).

B. M. CAPLES.

ACUTE ATAXIA.—This disease was first described by Leyden. Although all the cases reported present certain points of resemblance, they may be put into two groups. The central, or cerebral form, shows ataxia usually without disturbance of sensation, the latter, when present, being transient. There is usually scanning speech and frequently involvement of intelligence. The course is in some cases rapid and favorable, in others chronic and tending to an incurable trouble. It has no tendency to progression. The etiology includes traumatism and the acute infections (variola, typhus, dysentery, erysipelas) and is often obscure. The pathological process is probably a multiple, insular, acute encephalomyelitis, ending in sclerosis, having its seat in the mid-brain near the pons. The second form is the sensory, and is related to multiple neuritis (pseudotabes).

It is marked by sudden onset, frequent recovery or considerable improvement, and sensory affections of the nerves of the lower extremities, disturbance of speech being rare. Its usual etiology is rheumatic. Leyden (*Centrb. f. Klin. Med.* No. 50.) describes a typical case of the second variety. Male, aet. 55, previously healthy. Attributed the attack to a wetting. Five days later a sudden and complete ataxia developed. The only abnormalities were found in the lower extremities. The motor strength was normal, although distinct ataxia, Romberg symptom, slight reduction of sensation, distinct hypalgia, dysæsthesia, occasional lancinating pains and absence of knee-jerk were found. Almost complete recovery occurred within 3 months.—(*Wien. Med. Blætt.*, No. 53, 1891.)

G. J. KAUMHEIMER.

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ORIGIN AND SEAT OF EPILEPTIC DISTURBANCES.—This was the subject of an address by Horsley delivered before the Cardiff Medical Society. He considers the *seat* in the nervous system of the disturbance called an epileptic fit, and secondly the *place of origin* of that disturbance. The two great divisions of epilepsy are idiopathic, or general epilepsy, and Jacksonian. Concerning general, the phenomena which mark an attack of this kind may be enumerated in the following order: (1) Semi-voluntary movement, for example, rising into a standing posture. (2) Change in respiration, inspiratory with cry and commencing asphyxia. (3). In the worst cases simultaneous with 2, loss of consciousness (instantaneous). (4). Muscular spasms, clonic stage; exhaustion. To this enumeration must be added the facts that the asphyxial condition is very prolonged from its commencement, and that coupled with the early phenomena are also changes in the condition of the blood vessels. The first point which attracts our attention is the loss of consciousness, and the question occurs, upon what part of the nervous system does consciousness depend? And what agencies are capable of producing the unconsciousness observed in epileptics? The investigations of Strümpell and Goltz show that the cortical perceptive centres are the parts where consciousness arises, and that destruction of the functional activity of the cortex produces unconsciousness. Discussing the cause of the sudden annihilation of consciousness in epilepsy, Horsley holds that it is due to the perversion of the activity of the

nervous protoplasm. He holds that the experiments of Kussmaul and Tenner, from which it has been concluded that cerebral anæmia was the approximate cause of an epileptic fit, were worthless, or at least that the conclusions drawn from them were of no value. In a typical epileptic fit which Horsley produced by injections of absinthe, the condition of the nerve-centres was that of hyperæmia. He holds that the loss of consciousness, the change in respiration, the cry, and the muscular spasms, are all explicable upon the theory that the cortex is the part involved. In the majority of cases both hemispheres are involved simultaneously, though in some cases one hemisphere begins to discharge before the other. Experiment and pathological observation lead us to conclude that when the limbs of both sides of the body are in active convulsion both hemispheres are involved. To sum up: "Whatever be the point which the epileptogenous agency first attacks, we must conclude that the principal seat of the disturbance of a general, or idiopathic fit, must be the cerebral hemispheres, and especially their cortical mantle. Further, that the condition of the cortex during the attack is one of congestion, and not anæmia, and finally, that in all probability this portion of the encephalon is actually the place of origin of the disturbance."—(*Brit. Med. Jour.*, April 2).

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A CASE OF MORVAN'S DISEASE.—Dr. Richard Pick reports a case giving an extremely full clinical history. Its main points are: Its very slow progress, lasting over 22 years, comparatively painless whitlows with necrosis, involving fingers and toes, atrophy of the skin on the dorsum of both hands and feet and on the forearms, very symmetrically distributed, a great reduction of temperature in the peripheral parts, an atrophy of the subcutaneous tissues of the face, paræsthesias and diminution of sensation, pronounced Westphal symptom and some ataxia. Pick then very fully considers the differential diagnosis from lepra anæsthetica, sclerodactylia and syringomyelia in the light of all accessible published cases, giving 50 references to recent literature.—(*Prager Med. Wochenschr.*, No. 44, 1891).

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G. J. KAUMHEIMER.

THE NERVOUS SYSTEM IN ADDISON'S DISEASE.—Recent writers have done much toward the elucidation of the cause

of the complex symptoms found in this disease. According to Fliener, who writes in the *Medicinischer Anzeiger*, the opinion in Germany is, that the abdominal sympathetic, generally a branch which supplies the suprarenal capsule, is at fault. The work of Tizzoni has shown pigmentary infiltration and considerable alteration to exist both in the central nervous system and in the sympathetic system in Addison's disease. This author reported autopsies held in two cases of accidental death occurring in persons with distinct indications of this disease. In one case there was tuberculosis of one suprarenal capsule with chronic inflammation and thickening of the other. The semi-lunar ganglion was extremely enlarged. In the second case, left suprarenal capsule was in a state of metastatic angio-sarcoma, as were also bundles of the splanchnic nerves in this situation. Careful examination showed the whole sympathetic system and the accompanying blood-vessels to be in an inflamed and degenerated condition. This degeneration was especially to be found in the medullary fibers and in the ganglion cells. These pathological changes were also found to have extended to the intervertebral spinal ganglia, the peripheral nerves, the muscular-fiber cells and the mixed nerves of the skin. The posterior roots and the intercostal nerves were also involved in the degenerative process. This observer regards the process in the sympathetic as one of metastasis, as the histories of his two cases revealed previous ganglionic tumors in the neck of which nothing remained but the scars.—(*New York Med. Jour.*, Oct. 31, 1891.)

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B. M. CAPLES.

ADDISON'S DISEASE WITHOUT SUPRA-RENAL CAPSULAR LESION.—Dr. M. Raymond has had under care a 27-year-old woman, who had the first symptoms of Addison's disease early in Jan., 1891 (*Prog. Med.*, Mch. 19, 1892). She died in May, 1891. The supra-renal capsules on autopsy were found healthy. The right semi-lunar ganglion was sclerotic, the nerve-cells were pigmented, vacuolized and thinned; some of them were atrophied. The cord was healthy. In Raymond's opinion this case is additional evidence in favor of the belief that Addison's disease is a neurosis.

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J. G. KIERNAN.

EYE-STRAIN AND HEADACHE.—Dr. G. L. Walton would emphasize the following points in the above difficulty: 1.

The large proportion of cases of functional cephalalgia, and especially migraine, is due wholly or in part to eye-strain. 2. Good vision is not inconsistent with such difficulty. 3. When practicable, very slight errors of refraction should be corrected in cases of cephalalgia, as well as in others of functional nervous symptoms.—(*Medical News*, Mar. 19, 1892).

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B. M. CAPLES.

ON THE ETIOLOGY OF "ACUTE ANGIO-NEUROTIC," OR CIRCUMSCRIBED ŒDEMA.—Dr. Banke reaches the following conclusions: It occurs oftenest in patients with nervous diseases or a labile, excitable nervous system. Its heredity can often be proven. It often occurs after physical excitement or after disturbances which expend their influence upon the nervous system, as alcoholism. Other nervous disturbances, as neuralgias, contractures, or nervous dyspepsia, as well as other vasomotor disturbances, like urticaria or exophthalmic goitre, may co-exist. It has been observed only unilaterally. Its severity increases at times when the nervous system is particularly irritable, as during the menstrual and climacteric periods. Improvement is coincident with improvement in the general condition and the psychical state.—(*Berlin. Klin. Wochensch.*, No. 6, 1892.)

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G. J. KAUMHEIMER.

A CASE OF PAIN OF CENTRAL ORIGIN.—The patient, at the time of writing, was 61 years old, and had always been healthy. Vertigo suddenly appeared in 1886, which caused him to keep to his bed for a year. No paralysis of the extremities had occurred, but he complained of severe and constant burning pain in the right side of the face and left side of the body. He also complained of diplopia and considerable difficulty in turning the head to left, as well as in swallowing. At the end of a year a gradual improvement took place, which had lasted up to the present time. The status præsens is: voice hoarse, the right vocal cord being totally paralyzed. The uvula deflected somewhat to the left. The right supra- and infra-orbital nerves are sensitive on pressure. No ataxia. The patient spreads his limbs in walking and frequently falls toward the right side. Patellar reflexes are absent. Vertigo and tendency to fall are increased by closing the eyes. Sensation is reduced on the left side. A slight touch is less intensely felt on that side, a prick is less painful, hot water is felt as "luke-warm,"

cold, as "cool." Sense of location and tactile cognition equally good on both sides. Similar disturbances of sensation exist on the right side of the face. The mucous membranes on the right side of the head are also totally anæsthetic. The intense burning pain still persists in the affected parts. The author attributes these symptoms to a focus of softening in the right side of the medulla at the point where the fibers of the spinal accessory pass through it. This, he thinks, may be due to a thrombosis of the posterior inferior cerebellar artery, as the patient showed some arteriosclerosis. The pain he believes to be due to an irritation of the sensory fibers as they pass near the degenerated focus. The absence of the patellar reflexes, he says, is not rare in the aged.—(Dr. L. Mann, *Berl. Klin. Wochensch.*, No. 11, 1891).

G. J. KAUMHEIMER.

HYSTERIA IN SOLDIERS.—Dr. Oseretzkowski, a military physician, treats of this subject in his inaugural dissertation. During recent years he has observed and published a number of cases of hysteria in soldiers in the Russian army. His thesis handles the subject very exhaustively, with careful historic and bibliographic notes, in the form of a monograph. His work contains 265 pages and is divided into seven chapters in which he gives an historical review, and treats of the symptomatology, etiology, diagnosis, course, prognosis, and therapeutics of the disease, as well as its forensic importance. It consists chiefly of the histories of the cases which had come under the observation of the author, over 60 in number. What is interesting is, that about half of the published cases of hysteria in soldiers were in persons who were not of Russian birth—chiefly Israelites and Poles. The rare appearance of hysteria in the German army the writer explains by suggesting that hysteria in the male is often described, when appearing there, under traumatic neurosis. He does not think one is justified in regarding traumatic neurosis as a separate affection.

FRANK H. PRITCH RD.

HYSTERIA IN A CHILD.—At a meeting of the New York Neurological Society Dr. Leszynsky presented a girl thirteen years of age, who, two years and a half ago after fright from a dream, had hysterical symptoms manifesting themselves in paroxysms of laughing and crying. In 1891 she had

commenced to menstruate and had then begun to have convulsive seizures, which had been usually worse at the menstrual periods. She had passed through conditions of pure motor aphasia, and at the present time there are attacks of mutism lasting for a week or more; she also now has convulsions lasting sometimes many minutes, and at other times for hours. There are developed hysterogenic zones over various parts of her body. She has visual hallucinations and occasionally maniacal attacks, also movements of rotation and of combined rotation and retro-pulsion. Her visual fields have been contracted; lately there was a transient hemiplegia; no sensory disturbances; knee-jerk present, but only slightly marked; no history of onanism and none of ovarian trouble; general health good. Upon touching the patient on the head in one of the alleged hysterogenic zones a convulsive seizure promptly occurred.—(*New York Med. Jour.*, Apr. 9, 1892.)

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B. M. CAPLES.

PUERPERAL ECLAMPSIA.—Dr. Robert Barnes in reviewing the above subject as discussed before the British Medical Association at Bournemouth, thinks the following seems to challenge observation: That nephritis and the attendant albuminuria and uræmia cause the convulsions, but thinks it not unreasonable that some of the cases ending fatally do so greatly because the kidneys are completely disabled by inflammation or other change; while the numerous cases that recover do so because the kidneys are only functionally affected. He thinks a strong argument in support of the latter proposition is this: the rapidity, even suddenness of the recovery of the kidney power when the cause of the convulsions—the pregnancy, is removed. He says that disease of the kidneys is not constantly found, even in fatal cases. Depaul stated that in the necropsies he has made, the kidneys were perfectly healthy or simply congested; that in some of the cases in which disease was found, it was of chronic character antecedent in origin to the pregnancy. Leyden found that when the kidneys in three fatal cases of eclampsia with albuminuria had remained for a time in spirit, the fat in great part disappeared, and then the organs on microscopic examination appeared to be normal, and he accordingly inferred “that this fatty condition is not a degeneration, but an infiltration,” and that the appearances indicate an exaggerated physiological condition. He asks,

then, "What are the essential factors of eclampsia?" It is clearly not necessary to evoke disease, inflammatory or other, of the kidneys, since clinical observation proves that eclampsia may break out in subjects whose kidneys are sound; equally clear that albuminuria is not the cause, since eclampsia breaks out where no albumin is detected in the kidneys. The theory that the immediate cause of the convulsion is some poison circulating in the blood, rests upon strong physiological and clinical evidence. What that poison is, has not been shown. Urea is found in the blood and is wanting in the urine. He says in one case in which he bled the patient, urea and uric acid were found. This does not prove that urea is the active poison. What the kidneys ought to excrete is retained in the blood. The noxious elements have certainly not been clearly identified; for this reason he has proposed the word "urinæmia." He thinks the exalted, nervous and vascular tension special to pregnancy, an essential factor; that the high arterial tension is the immediate efficient cause of the kidney struggle, and this, he thinks, explains the occasional occurrence of convulsions before the appearance of albuminuria, that is, that there is a pre-albuminuric stage, and cites the observations of Dr. Mahomed, followed up by those of Fancourt Barnes with the sphygmograph as throwing a new light upon the genesis of convulsion. From observations made in Paris he has almost invariably found the weight of the heart of women dying soon after labor, to be an ounce or more in excess of the standard of eight or nine ounces. The observations of Marey, Mahomed, Macdonald, Fancourt Barnes and others, demonstrate this hypertrophy of the heart and consequent high tension. This stage begins in early pregnancy, continues throughout while the child is alive, and under the mutual reactions with exalted nervous tension may so overpower the natural balance of the functions that convulsions may break out before the appearance of albumin in the urine. The convulsion does not restore the balance. The underlying factors of nervous and arterial tension remain, and presently albuminuria may appear. Albumin may be found in the urine after the convulsion, but it does not follow that the convulsion was the cause of the albuminuria, or that the albuminuria was the cause of the convulsion. Both phenomena are due to the exaggerated nervous and arterial tension. The altered constitution of the blood certainly is a

third factor, and it is probable that advancing toxæmia may act as the immediate cause of the explosion. These and other associated facts deserve the serious attention of those specialists who devote themselves to the study of kidney, heart and nervous disorders, specially neglecting the luminous illustrations supplied by the great physiological experiment of pregnancy, and its analogue, menstruation. He thinks the above phenomena are physiological. Organs strained to their utmost become unequal to their functions. Over-strained physiology is indeed perilously near to pathology, and the over-wrought nervous system may give way to convulsion. In the whole range of medicine there is probably no case in which the disease so clearly dictates the treatment, knowing the main cause of the disease, the pregnancy. Some specialists, ignoring this primary factor, have enunciated the catching aphorism, "Treat the convulsion or the albuminuria, and let the pregnancy take care of itself." A sentence composed of two absurdly contradictory propositions. It amounts to saying, "Treat the effect, and let the cause go on acting." Wherever we find marked albuminuria; with or without convulsion, in a pregnant woman, the first and most pressing indication is to bring the gestation to an end, to reduce the complication to its simplest expression, and then to treat what remains of the effect. The next indication is to moderate the high nervous and vascular tension. Here, nature sometimes guides the physician. A copious flooding, which may or may not be the precursor of abortion, sets in, and the fit and albuminuria may be at once relieved. This suggests venesection—a disputed point. It is not wise to make venesection a rule, but the empirical evidence in its favor in appropriate cases is incontestable. The next indication is to calm the nervous irritability and reduce the nervous tension. A golden rule that the author has always enforced is, "in any case in which a fit is probable, to make no examination, not to pass the catheter, to force no food or medicine until the patient is under the influence of chloroform." The slightest disturbance, especially touching the genitals, may provoke a fit. In the pre-albuminuric stage, salines, calomel, podophyllin are eminently serviceable. In the eclamptic stage chloroform comes first. It will frequently avert or shorten the fit. Chloral also acts well. Inhalations of nitrite of amyl act excellently. Antipyrin he thinks worthy of trial, but doubtful if it will work as well as chloral or nitrite of amyl.

He says the main motive of this communication is to invite more extended inquiry into the relations of albuminuria and eclampsia to show that there is no necessary or constant association of the two conditions; that we cannot regard either as the cause of the other, and that, therefore, the primary cause of both exists in the constitutional conditions evolved by pregnancy. All rational treatment flows from the recognition of this elementary fact.—(*British Med. Jour.*, Nov. 7, 1891).

B. M. CAPLES.

THE NATURE AND FREQUENCY OF INEBRIETY WITH REMARKS ON ITS TREATMENT.—Dr. C. L. Dana has an article upon this subject, being a study of 614 cases of mild alcoholism. The occupations were as follows:

Professions.....	3 per cent.
Clerks.....	13 “
Tradesmen .....	25 “
Laborers .....	35 “
Drivers.....	8 “
Others.....	17 “

About one-half the cases were in a condition that the author calls “plain drunkenness.” The other half were persons who were verging on, or already in, alcoholic coma, convulsions or mania. About ten per cent. die either from a complicated pneumonia, from delirium and exhaustion, or meningitis. A smaller per cent. become insane. Epilepsy is the most frequent complicating condition. Over three per cent. out of three hundred and fifty were epileptics. Next comes insanity or dementia, two per cent. Multiple neuritis occurs in about one in 400 or 500 cases of men; very much oftener in women—one or two per cent. Drinking habits in the parents were reported in all but ten out of 350. Usually the father is the drinker. In 8 cases both parents; in 1 case the mother alone. The age, sex, race and occupation I have given in a previous study. Inebriety, however loosely defined, is not a disease which has a structural or anatomical basis that can be recognized, the lesions found being the consequence, not the cause, of their indulgence. Neither inebriety nor drunkenness is ever a disease; it is a symptom only. When a man has a depression of spirits, gets nervous and worried, takes to drink, and drinks until he makes a wreck of himself, the propagandists of the gospel of inebriety say that he has caught their disease, but

this is not so. We are also told that neurasthenia, fracture of the skull, etc. may cause inebriety, but this is a loose way of dealing with the subject. The so-called habitual inebriates who drink and keep more or less drunk the year through, should be classed with persons who have depraved and morbid habits, with, perhaps, the secondary diseases which are the result of their indulgence. Among 350 cases studied by the author he analyzes them as follows:

Steady drinkers .....	261
Sots .....	15
Occasional drinkers .....	25
Periodical inebriates .....	18
Unknown .....	31
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Total .....	350

By the steady drinker is meant a class of persons who drink every day whenever occasion offers. The proportion of persons who are, strictly speaking, inebriates, is thus seen to be about five per cent. The author's experience leads him to believe that plain drunkenness is to inebriety about as 700 to 1.—(*Medical Record*, Mch., 1892.)

**PATHOGENESIS OF BERI-BERI.**—Dr. Wm. Leopold thinks geological and meteorological conditions have a great deal to do with the causation of this disease. It never occurs *de novo* in Montevideo, which is situated on a rocky soil and is swept by antarctic breezes. In Buenos Ayres, where the soil is alluvial, it does occur sporadically, while Northern Brazil, with its luxuriant vegetation, tropical climate, great humidity, and a soil composed largely of decomposing vegetable matter, is the true home of the disease. Drs. Musso and Morelli, of Montevideo, have found four microorganisms in the blood of beri-beri patients. 1. *Staphylococcus pyog. alb.* 2. A chain coccus. 3. A small streptococcus. 4. A micrococcus, which, inoculated upon guinea pigs and dogs, produced in every case a degenerative neuritis, and which was considered the specific microbe of the disease. Intrameningeal inoculation produced similar results. Microscopically, a gelatinous exudate was found under the myolemma, the protoplasm was enlarged, the muscle-cells not stainable by aniline or picrocarmine. In the clinically well-marked oedematous variety, colonies of the characteristic micrococcus were found in the epicardium and myocardium. In

the severer cases the muscle-cells are substituted by masses of granular debris. Interstitial proliferation was slight. The degenerative changes were found to involve the vagus in each case. The changes in the nerve fibers have been described by Baelz and Scheube as atrophy of the axis-cylinder with segmentation of the myelin sheath, and small-celled infiltration of the sheath of Schwann. Regenerative processes are also observed. In advanced cases the process extends to the central nervous system in the form of a gray degeneration of the posterior columns, later extending to the anterior horns, showing a molecular degeneration, and clinically the symptoms of tabes.—(*Berl. Klin. Wochensch.*, No. 4, 1892).

G. J. KAUMHEIMER.

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NEUROLOGICAL FRAGMENTS.—This was the subject of a lecture by Dr. Hughlings Jackson before the Hunterian Society. The author holds that much benefit would be derived from the study of delirium in such non-nervous diseases as pneumonia or emphysema with bronchitis. While this condition is not strictly insanity, it is practically so as being a departure from the normal mental condition. In all insanities, except dementia, there is a double mental state, that is, one of two opposite mental states. There is a positive mental element, delirium, and with that there is a negative element. On this basis we may sometimes trace an increasing double departure from normal mentation. In cases of emphysema with bronchitis we can observe a gradual losing touch with present surroundings (negative element), and a gradual increasing quasi-relation to organized experiences of former surroundings (positive element). The patient gradually ceases to live in the real world, while he comes to live more and more in a world of his own creation. A patient delirious with erysipelas had an abscess on the eye-lid opened while he was confined in a straight-jacket. The patient's account of this was, that while he was stopping at an hotel the landlord fastened him down and put his eye out. The patient who gradually ceases to live in the real world and comes to live in a world of his own, at length, when he becomes comatose, lives in no world at all so far as he is mentally concerned. The "two degrees" of insanity in cases of emphysema are in part due to super-venosity, or different degrees of it. Supervenous blood has much interest for the neurologist. It is well known that

such blood stimulates certain medulla centres. A slight degree of supervenosity may be beneficial in cases of emphysema by its stimulating the respiratory centres. Supervenous blood annuls the centres in parts of the cortex. This being so, it cannot cause delirium, which implies activity of function, but this blood condition destroys the function of the higher centres, and the lower centres being more strongly organized may remain normal, but finally these lower centres may also succumb. Speaking of the resemblance of the symptoms of apoplexy and those of alcoholic intoxication the author says: "The diagnosis of apoplexy produced by alcohol from that produced by cerebral hemorrhage may be impossible. Supervenosity, as in cases of cyanosis from emphysema, may cause loss of the knee-jerks. A question in neurology—one of great physiological importance and clinical interest—is raised by certain researches of Charlton Bastian. He showed that in some cases of an absolutely transverse lesion of the cord above the lumbar enlargement, the knee-jerks were absent and the legs flaccid up to the time of death, three or four months later. This is quite contrary to current doctrine. "So far as I have observed in cases of fracture, dislocation or crushing of the cervical cord completely across, the knee-jerks are lost—to take that one symptom for illustration. I am greatly interested in this matter since Bastian's conclusions harmonize with the hypothesis I have put forward as to cerebral and cerebellar influxes. It may be said that if the patients referred to lived long enough their knee-jerks would return. In some dorsal cases under my care the knee-jerk has returned—in one case after being absent for 38 days, and in another for 2 years; there is in neither case any return of sensation or motion in the legs; but granting for the sake of argument, and for the sake of argument only, that there has been no re-establishment of lines of connection in these cases, we still have to explain the absence of the jerks for weeks and months in conditions where shock was out of the question. If Bastian has only shown that the knee-jerks are absent for weeks and months, he has made a valuable contribution to clinical medicine; I should still think that the doctrine of the cerebellar influx is countenanced. The situation is not so simple as it has been supposed to be. In many such cases (Bowlby) the superficial reflexes are present, or if absent at first may return. It has been said that when in chronic

cases the knee-jerks are absent there are set up secondary morbid changes in centres below the lesion, and perhaps in peripheral nerves; we have, however, to explain not only the loss of the tendon reaction, but also the presence of the superficial reflexes. I have applied the doctrine of non-antagonized cerebellar influx in the explanation of athetosis and paralysis agitans, supposing that in both, upon loss of cerebral influence, there is preponderance of cerebellar influence. It is right that I should state facts counter to this application of the hypothesis. Victor Horsley by removing the arm area of one of his patients, put a stop to athetosis."—(*The Lancet*, March 5, 1892.)

A NEW ALGESIMETER.—Dr. Julius Hess described an instrument for the measurement of the sensibility to pain. It consists of a metal tube with an arrangement for protruding a needle from its bottom to any extent desired. He claims that it enables us to accurately define the quantitative and qualitative extent of analgesia in nervous diseases. It certainly has the advantage, if it should come into general use, of furnishing a fixed unit of pain, which cannot be said of pinching, pricking with a pin, pulling of hair and other crude methods. He relates a large number of cases illustrating its use.—(*Deutsche Med. Wochensch.*, No. 10, 1892.)

G. J. KAUMHEIMER.

## THERAPEUTICS.

BONUZZI'S METHOD IN TABES.—Dr. Pietro Bonuzzi has devised a method of stretching the spine which presents the double advantage of requiring no apparatus and being much more powerful in action than suspension. The patient is laid upon a couch with the head and shoulders raised on a pillow. The ankles are then grasped and carried upward, flexing the trunk until the knees can be made to touch the forehead, or in extreme cases, the shoulders. Experiments on the cadaver show that this method stretches the spinal cord over three times as much as suspension. Prof. M. Bernhardt has "obtained surprising results in a number of very severe cases. Patients formerly unable to walk or stand could take long walks and were able to stand with closed eyes, as after suspension. The action upon the neuralgic pains was more constant and intense." The shock to circulation and respiration is much more intense than during suspension. Caution is necessary

as rachalgia and swelling of the flexors of the thigh may occur.—(*Wien. Med. Presse*, No. 1, 1892).

G. J. KAUMHEIMER.

ATROPINE IN PARALYSIS AGITANS.—Eulenberg (*Centrbt. f. Klin. Med.*, No. 40) gives an abstract of an article by Moretti. Moretti injected 1 mg. of atropine into a man aet. 60, whose trouble had resisted all medication. The trembling ceased in a few minutes, but toxic symptoms supervened. At the 4th injection the quantity was reduced. After the 52nd injection, it was found that motility was improved and that the tremor disappeared for 4 to 6 hours after each injection. To avoid habituation hyoscyamine was substituted, with bad results. The patient had received about 1000 injections, the present dose being but  $\frac{1}{2}$  mg. (1-120 gr.), per diem, with uniform good results. Similar good results were observed in two other cases. Patients should be kept under constant supervision in hospital. In the discussion Bastianelli reported similar results in the disseminated sclerosis and spastic paralyses: diminution of tremor and the muscular hypertonus. Persuti reported that Morretti's second patient had developed intolerance. He believes the remedy to be "good but dangerous." Sciam saw transient results from solanine and gelsemine. Arcangeli saw various forms of tremor disappear after the use of atropine.—(*Wien. Med. Presse*, No. 46, 1891.)

G. J. KAUMHEIMER.

Translator has tried the alkaloid in a case affecting the right hand and forearm. 1-100 gr. produced no effect. 1-60 gr. produced a disagreeable dryness of the throat and headache, but did not affect the tremor.

THE NECESSITY FOR EARLY MECHANICAL TREATMENT IN INFANTILE SPINAL PARALYSIS.—Dr. W. R. Townsend says that deformities are usually due to two causes, trophic changes in the limbs, and muscular paralysis of one set of the muscles, permitting the opposing set to contract, and thus change the normal relations of the limb. These difficulties may be largely overcome if we bear in mind the regular progress of the disease. In the early stages use strychnia and other drugs; give electricity faithfully, and for a considerable period; employ massage, manipulation and heat; use mechanical treatment from the beginning. Do not permit the contractures to occur. Retain, in

the case of the lower extremity, the foot, ankle and knee in their proper and normal positions. See to it that as the child begins to walk, if disease comes on in the first year of life, that it walks on the sole of the foot, and with foot at a right angle to the leg. This is easily accomplished by any of the simple forms of braces. If the disease comes on at a later period, see that as soon as walking is resumed the foot is in proper position. If the child show a tendency to contractures before it begins to walk, put the limb up in plaster-of-Paris, a suitable brace, or fasten the limb to a cuirass, or frame. He thinks that if these cases were thus systematically treated and the deformity prevented, that possibly some of the deformities now ascribed to trophic changes might be somewhat diminished.—(*Medical Record*, Jan. 30, 1892.)

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B. M. CAPLES.

THE TREATMENT OF EPILEPSY.—Dr. G. Hinsdale gives his experience in the use of potassium bromide, magnesium bromide, nitro-glycerine, antifebrin and sulfonal. Speaking of potassium bromide, he used it in 12 cases. The result was satisfactory in one, doubtful in five, unsatisfactory in six. As it is an intestinal irritant and lowers the pulse and depresses the heart, it is not considered a valuable remedy to use. Magnesium bromide exerts an undue power in controlling epileptic attacks, but it is more liable to produce facial eruptions than the other bromides. Nitro-glycerine failed in results. Nitrate of potassium has not been satisfactory. Antifebrin had temporary beneficial results, but it soon lost its power. Sulfonal was unsatisfactory.—(*International Medical Magazine*, March, 1892.)

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TREATMENT OF EPILEPSY AND STATUS EPILEPTICUS.—Dr. J. Krueg has found sodium salicylate given in doses of 1 to 2 gm. before the convulsion to cut short an epileptic paroxysm. It is, of course, best given in those cases in which an aura appears some time before the convulsion. He has also tried it in the case of a girl who, in spite of bromides and all other forms of medication, had a large number of fits each day. In 17 days of observation she had 109 fits, in 30 days under atropine 165 fits. While taking 3 gm. of sodium salicylate daily she had 28 fits in 7 days, and in the succeeding 76 days, with daily doses of 1 to 5 gm.—14 fits. It was soon found, however, that the incidental effects were such

that the remedy had to be discontinued. During the following week the effect was still manifest, two to five convulsions occurring every day. Then a severe epileptic storm occurred, similar to that occurring after the cessation of large doses of bromides, with much mental excitement and confusion. The average daily number of convulsions was reduced, permanently, it seemed, to  $3\frac{1}{2}$ . In the treatment of the status epilepticus the drug par excellence is chloral. If possible 3 gm. should be given by the mouth. If this is impossible from any cause, it should be given by the rectum. The solution should be warm, rather dilute and injected through a soft tube passed up high. The anus should be compressed after the injection. If the rectum should not retain it the drug should be given hypodermically. At least 2 gm. should be given in a solution not stronger than 10 %, a 5 % solution being preferable. The hypodermic needle should be joined to the hard-rubber syringe containing the solution by a soft rubber tube. The entire quantity should be injected through several different punctures.—(Extract from Somatic Treatment of Ment. and Nerv. Dis., *Wien. Med. Blätt.*, No. 51, 1891.)

G. J. KAUMHEIMER.

SODIUM BORATE IN EPILEPSY.—Mairet concludes (*Prog. Méd.*, Feb. 6, 1892) that borax should be given in epilepsy in beginning doses of fifty centigrams to 1 gram and gradually increased until an impression is produced on the digestive tube. When eight grams do not control the attacks larger doses are useless. In a general way, the maximum daily doses needed in certain cases may reach ten grams. When the limit of useful action is reached the dose should be so diminished as to bring it below four grams, a dose readily tolerated. The dose should never be diminished below two grams.

J. G. KIERNAN.

TREATMENT OF CHOREA WITH EXALGIN.—Dr. Hugo Loewenthal has treated 35 cases in children between 3 and 18 years old with this drug. The dose was 0.2 gm. repeated 3 to 5 times daily. In 3 cases the chorea had been preceded by rheumatism. The cases varied in severity from light to grave; in duration before treatment was begun, from 2 days to several weeks. In some light cases, improvement began after 12 doses, in the most, however, only after

25 to 30 doses had been taken. The smallest amount used was for a boy of 8-12 doses; the largest, for a severe case in a girl of 15-560 doses. Unpleasant incidental effects were often observed and the drug stopped as soon as these occurred. Nausea, vomiting, fatigue, headache, vertigo, icterus and cyanosis were observed, but usually ceased with the cessation of medication.—(*Berlin Klin. Wochensch.*, No. 5, 1892.)

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G. J. KAUMHEIMER.

POTASSIUM IODIDE IN CHOREA.—Sewening (*Allg. Med. Cent. Ztg.*, 77, 1891) advises the use of potassium iodide in chorea. He claims to have cured a girl, aged 10, by the administration of 7.5 gms. in doses of 0.25 gm. 3 times a day.—(*Wien. Med. Wochensch.*, No. 44, 1891.)

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G. J. KAUMHEIMER.

CONVULSIVE TIC; ITS NATURE AND TREATMENT.—Dr. Græme M. Hammond contributes the following article to the *Medical Record* of Feb. 27: Convulsive tic is characterized by brief spasmodic contractions of individual muscles, or groups of muscles, with periods of rest between the spasms varying in duration from a few seconds to several minutes. Muscular movements are usually quickly made, sharply defined, and differ materially from the slower, aimless, and almost continuous muscular contractions of chorea. It usually begins in childhood, and unless it is arrested sometimes continues throughout adult life. Sometimes a distinct neurotic history can be traced in either one or both parents, but in all cases there is probably a strong neurotic tendency on the part of the affected individual. The author thinks that lesions of certain parts of the motor tract are invariably followed by spastic spasm, and never mobile spasm. In the treatment of this trouble he has secured the best results from the internal administration of conium and atropine, and thinks the efficacy of these remedies is greatly enhanced by combining them with moderate quantities of bromides. He thinks that atropine, when properly used, will, in the majority of cases, be sufficient to control the manifestations of the disease if it is not due to an organic lesion. In his experience, cases have yielded more readily to conium than to atropine. Both these remedies should be given at first in small doses and the quantity gradually increased. With the atropine he began with a dose of about

1-100 gn. and gradually increased to 1-40 of a grain. Seldom necessary to increase beyond this point. Conium, he begins with 5-drop doses of the fluid extract, increasing the dose one or two drops a day until the tic ceases, or until physiological effect of the drug is produced. As soon as the patient begins to complain of weakness, vertigo and double vision, dose should be reduced.

B. M. CAPLES.

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ON TIC DOULOUREUX.—Prof. Benedikt believes this trouble to be mainly of central origin, although peripheral influences will cause exacerbations. Various vasomotor phenomena in the small vessels as well as in the carotid are often found associated with it. Central galvanization, especially of the sympathetic, is the remedy which should be used first; faradization, local galvanization and static electricity may also be tried. Digital compression of the carotid is often of great value. External and internal medication are generally futile. A great proportion of fresh cases is permanently cured by galvanism. If electricity fails to give relief within 10 to 14 days, recourse should be had to surgical measures. Here a decided traction exerted upon the central portions of the nerve is of more importance than mere resection. The immediate results of the operation vary. The pains may continue for some time and no anæsthesia occur, generally through an abnormal nervous anastomosis. Usually the pain after operation is amenable to galvanism, even if it was not so before.—(*Wien. Med. Presse*, No. 11, 1892.)

G. J. KAUMHEIMER.

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TREATMENT OF NEURALGIAS.—For the rheumatic (so-called idiopathic) neuralgias, iodine and the hypodermic use of carbolic acid are the most potent of internal remedies. The salicylates take the second rank. The coal tar products will lessen pain and increase the painless interval, but have no curative action except in such cases as tend to spontaneous recovery. Narcotics cover up the disease. Cold or hot applications may do good. The two specific remedies are galvanism and the actual cautery. In the use of galvanism we must bear in mind that the plexuses are usually involved. In applying the cautery, care must be taken to use it over all the affected nerve trunks and pain-

ful points. An incomplete cauterization will not produce a cure. The action is much more powerful than blisters, especially as the author dresses the burns with an epispastic for 8 to 10 days. He has such confidence in the use of the cautery that he states "that if a neuralgia becomes chronic, an error of treatment has been made, or the neuralgia is due to a local process or constitutional trouble not yet manifest." In regard to neuralgias due to troubles in the cord or at the nerve roots, he states that galvanism is only exceptionally useful, that faradism is efficient as a palliative, and that the actual cautery over the origin of the involved sensory roots is the remedy par excellence. He even advises cauterization of the shaven scalp in many forms of cephalalgia (!). In migraine, which he calls a "neurosis of the sensorium," he has found faradization with the "electrical hand" and the electrostatic douche of value in the interval. (*Prof. Benedikt, Wien. Med. Presse*, No. 8, 1892.)

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G. J. KAUMHEIMER.

TREATMENT OF SCIATICA AND PERIPHERAL NEURALGIAS BY THE SUBCUTANEOUS INJECTION OF ETHER.—Dr. Chindamo writes enthusiastically of the results which he has obtained with sulphuric ether given hypodermatically. In 11 cases of rebellious sciatica he administered this drug subcutaneously with the most happy results. In a severe case, the first day he injected half a syringeful into the buttock, at the height of the sciatic notch; a slight burning pain followed which soon yielded to cold compresses. The morning of the second day an entire syringeful was injected into the upper portion of the femur, and in the course of the day a most grateful calm of the painful paroxysms took place; towards evening another injection was made into the middle of the femur. On the third day he injected an entire syringeful into the lower portion of the femur and the popliteal space, morning and evening. The results obtained were most surprising; the patient, on the morning of the fourth day left his bed and came to visit the writer. Two more injections were made, one in the external popliteus, and the other, in the evening, in the posterior portion of the external malleolus. With the seventh injection a complete cure was obtained. The patient complained of no pain in the whole length of the sciatic nerve; he could move his limb freely. For the sake of precaution, two more injections were made the following two days into a point

equidistant between the hip and knee and the knee and ankle. The cure in this case has remained permanent. This may be taken as a typical case, illustrating his method of treatment. Ten other cases of more or less gravity were all treated by this method, and successfully; one of them, in a pregnant woman, also yielded. A case of intercostal neuralgia of great and rebellious atrocity and of two years' duration, was also cured after two injections of sulphuric ether. (*Rivista Clinica e Terapeutica*, Dec., 1891.) Subcutaneous injections of ether are by no means devoid of danger. Kums has also employed the remedy in the treatment of neuralgias. He injects 1 gram subcutaneously. He has found it of great service in neuralgic pains of the shoulders and arms, in torticollis, sciatica, trigeminal neuralgias, pains in the stomach, teeth, etc. In most of the cases which had defied other remedies, 1 or 2 injections were sufficient. He does not mention any disagreeable effects. (*Ugeskrift for Læger*, No. 30, 1891.) A writer in the *Edinburgh Medical Journal*, 1890, describes a case of local paralysis, following subcutaneous injection of ether. Eberhart reports a case in the *Centralblatt für Gynækologie*, No. 12, 1891, and in studying the literature finds but three cases, besides his own. The Scotch writer has collected several cases which are not given by Eberhart. If one will use the remedy, then inject where there are but few nerve-trunks, and they are well covered with skin and fat. If used as a stimulant then the tincture of musk or oleum camphoratum are suggested as possible substitutes.—(*Translator*).

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FRANK H. PRITCHARD.

ANGINA PECTORIS.—Dr. H. D. Bixby says patients are not talkative during the paroxysm. He says the patient attempts to assume a position that will relax the muscles of the thorax and arm. The face is pale, the features expressive of intense anguish. Respiration is restrained, for movement of the chest wall intensifies the agony. Heart slow, or irregular. From a clinical standpoint there seems to be little, if any advantage, in considering the affection under the two forms, true angina pectoris (in which there is disease of the heart), and false angina (in which there is no recognized heart-lesion). He says no clinical distinction can be determined, and the pathology of the disorder is at best uncertain. The means at hand for treating the spasm can now be plainly indicated: ether, chloroform, morphine

hypodermically, and amyl nitrite. Of these, morphine and the nitrite are preëminently the best. A general course of nerve tonics and other judicious medication will prove satisfactory both to patient and practitioner. For the treatment during the interval arsenic holds a position similar to that of amyl nitrite during the paroxysm.—(*Medical News*, Mar. 6, 1892.)

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B. M. CAPLES.

MIGRAINE.—This was the subject of a clinical lecture by Dr. G. M. Hammond. Migraine usually first makes its appearance at about the age of puberty, though it may develop earlier. Angio-spastic migraine is supposed to be due to a spasm of the blood-vessels on the affected side as a result of irritation of the cervical sympathetic. Whether the vascular spasm is a simple accompaniment of the disease, or its approximate cause, has not yet been determined, but in the author's experience remedies which dilate the blood-vessels give relief, while those which contract the blood-vessels increase the pain. In treating this form, inhalations of nitrite of amyl and internal administration of glonoin in doses of 1-100 of a grain, alcohol in moderate quantities, quinine in doses of from 10 to 15 grains, or a hypodermic injection of  $\frac{1}{80}$  or  $\frac{1}{90}$  of a grain of strychnine, will usually stop the paroxysm. The author does not administer opium for this disease, owing to the liability of the habit being formed. (Is not the same objection equally applicable to the use of alcohol?—Ed. *Review*). In the general treatment for the disease sources of irritation should be removed; eye defects removed; constipation or indigestion should be removed, or any other condition that may be a contributory cause. Fowler's solution in five or six drop doses three times a day for several months is considered a favorable remedy. Iron, quinine, strychnine and the phosphates are also recommended. Another form of migraine is the angio-paralytic form. In this form the vascular condition is that of dilatation. For this the author recommends phenacetin in large doses, arsenic and the bromides.—(*International Clinics*, Jan. 1892.)

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THERAPEUTICS OF PAIN.—In a clinical lecture upon this subject, Dr. Thomas J. Mays speaks as follows: "*Affinity of Drugs*.—The fact that all our medicaments have a tendency to affect special structures in the body is too well known to

require elaborate demonstration. This property of agents gives us the power not only to work on certain structures, but it enables us to pick out and work on different parts of the same structure. Thus curare influences the very terminals of the motor nerves and leaves intact the trunks of these nerves. Cocaine and theine affect the peripheral sensory endings, rather than the centres of sensation. Possessing the knowledge of the elective affinities of our therapeutic agents, we must diagnose the exact seat of pain and then select the remedy which affects this area, and thereby relieve the disorder. *Special Application.*—Atropine has a special influence on the peripheral, respiratory and cardiac nerves, and is useful in all diseases affecting the respiratory and circulatory organs. First of all, this alkaloid is perhaps most useful in asthma, in bronchitis, in bronchorrhœa, in pneumonia and in all adynamic diseases of the lungs. In children, or in the aged, or in those suffering from exhaustive diseases, where the lungs fill up with catarrhal material, and where there is great distress in the chest, as in threatened suffocation, atropine given hypodermically is a most useful remedy. When combined with strychnine its effects in asthma are wonderful, although in this case I think most of the credit is due to the strychnine. Atropine is also useful in sciatica, especially when combined with morphine, as well as in the neuralgia that accompanies dysmenorrhœa. Veratrine is a useful agent in relieving pain like neuralgia of the superficial nerves, among which are supra- and infra-orbital, intercostal, sciatic and crural neuralgias. In myalgia, lumbago, etc., its external application is followed by benefit. Internally its action is uncertain.

*Brucine*, one of the alkaloids of *strychnos nux vomica*, also acts on the cutaneous ends of the sensory nerves and in the form of an oleate may be used in itchiness of the skin, and in itching piles, with great benefit. When administered internally it acts like strychnine, although it must be administered in larger doses to secure this effect, and I have even known it to produce complete relaxation in the frog without any tetanus whatever.

*Kava-Kava*, a resinous body, derived from *piper methysticum*, and brought before the profession of this country principally through the researches of the late Dr. Randolph, is a most useful local anæsthetic. It deadens the sensibility of skin and mucous membrane when externally applied, and has been applied with good effect in light operations of the nose,

mouth and throat. Its resinous nature, however, makes its hypodermic injection difficult.

*Hydrastine*, an alkaloid of *hydrastis canadensis*, is a local anæsthetic when applied to the skin or when thrown under it by a hypodermic needle. Used in this manner it is useful in superficial neuralgia. Internally its administration has been followed by the most excellent results in the pain which accompanies gastric catarrh. Some claim good results from it in the pain of fibroid tumors of the stomach.

*Theine*, the alkaloid derived from tea leaves, I found from a series of physiological and clinical investigations, to possess a decided local analgesic action when introduced subcutaneously. This action has been confirmed by many clinical observers since, who have used it in sciatica, lumbago, intercostal neuralgia, etc. Its influence is manifested very promptly, and it acts on the nerve beyond its seat of introduction, and without allowing any narcotic influence in the higher nerve centres.

*Gelseminin* seems principally to influence the sensory nerves and is chiefly useful as a pain-relieving agent in trigeminal neuralgia. Its action is also well spoken of in intercostal neuralgia, in ovarian neuralgia and in dysmenorrhœa.

*Codein* has been shown by Dr. Brunton to have the power of lessening the irritability of the intestinal nerves, and possibly also those of the respiratory organ. It is therefore useful in nearly all forms of abdominal pain, like colic and ovarian neuralgia, etc. It is also useful in allaying the distressful cough of phthisis without disordering the regular movements of the bowels, as is the case with morphine.

*Alcohol*, as an external application, diluted with eau-de-cologne relieves headache, subdues the acute pains of pleurisy and of other exterior affections. When given internally in large doses it aids in relieving the distressful and often painful breathing in acute pneumonia."—(*The Philadelphia Polyclinic*, March, 1892.)

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DIAGNOSIS AND TREATMENT OF MORVAN'S DISEASE.—Dr. Grasset finds this affection to be very difficult of diagnosis. It commences with neuralgic pains, and is defined by Morvan as a paresis with analgesia of the upper extremity, first limited to one side, and always terminating with the production of one or more felons. In case a patient presents

himself with a suspicion of the existence of this disease one may think of and differentiate: 1. An old neuralgia, or rather a neuritis, with pains, paresis and trophic disturbances, but which does not offer the progressive course of the lesion, nor the analgesic panaritria which characterize Morvan's disease. 2. Raynaud's disease, or local asphyxia of the extremity, which is a species of vaso-motor neurosis, accompanied by symmetric spasms of the vaso-constrictors, sometimes giving rise to gangrene in the full sense of the word; the neurosis with sphacela instead of felons. 3. Erythromelalgia, or Weir-Mitchell's disease, paralysis of the vaso-motors, consecutive to cold and excessive fatigue. Here the sensibility is intact; here and there is hyperæsthesia, but never analgesia nor paresis, neither necrosis of the phalanges. 4. Sclerodactilia, a special form of scleroderma, in which the skin may ulcerate and give rise to a false panaritium, in which there is neither paralysis nor analgesia. 5. Leprosy, with which confusion is easy; but besides the etiology there are no true felons, and the leprosy macules furnish an important element in the diagnosis. 6. Syringomyelia; here the case is more difficult. These two clinical syndromata have been both confused and separated by clinicians. In syringomyelia the syndrome is especially anatomical; there is the presence of a cavity in the spinal cord, which cavity may be found in Morvan's disease. Nevertheless, this symptom is more constant in syringomyelia; it lasts the entire time, while in Morvan's disease it is only temporary. The trophic disturbances of both affections are different; in syringomyelia there are muscular atrophies and no panaritria. The analgesic whitlows are the exclusive characteristic of Morvan's disease. The prognosis of Morvan's disease is always bad; it cannot be cured. The disease runs its course slowly, with exacerbations in winter and remissions in summer. The treatment presents great difficulties; electricity alone will give any relief. The constant current should be employed. It seems as if the patients get real relief from this treatment. As remedies, the writer prescribes the iodide of sodium or the iodide of gold and sodium, according to the following formula: double chloride of gold and sodium, 4 to 8 milligrams, distilled water, 90 grams. A teaspoonful every two hours.—(*Revista Clinica e Terapeutica*, No. 2, 1892.)

COPPER IN ADYNAMIC ANÆMIA.—Luton and Liegeas have found copper (*Prog. Méd.*) of value as a tonic alterative nervine. Pearson (*Medical Standard*, Feb., 1892) points that in adynamia, a kind of nervous asthenia, copper is of value, as it stimulates the cardiac and capillary circulation and acts as a nervine tonic.

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J. G. KIERNAN.

TREATMENT OF MORPHINISM.—Obersteiner individualizes strictly in the treatment of the morphine habit. Beginning with the average daily dose, he withdraws it as rapidly as the patient can stand it. When the dose has been reduced to a few centigrammes caution is necessary, as even a slight reduction is then badly borne. At this stage warm baths of from 5 to 15 min. duration, followed if necessary by the cold shower or cold pack for  $\frac{1}{2}$  to 2 hours at a temperature of 77° to 86° F., are often of benefit. Alcohol in liberal quantities often gives relief. Cocaine has no other use than to modify the symptoms and should only be used when these become violent, say 24 to 48 hours after the last dose of morphine. It is always given by mouth in doses of 0.05 to 0.1 gm., never exceeding 0.5 gm. per day. It should be reduced in a few days and never continued longer than 5 or 6 days. Nutrition must be improved by all possible means. If collapse occurs, morphine must be resorted to. Patients with cardiac troubles should not be subjected to complete withdrawal.—(*Wien. Med. Presse*, No. 48, 1891.)

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G. J. KAUMHEIMER.

EXALGIN IN SYDENHAM'S CHOREA.—Exalgin in 20 centigram doses thrice daily has been found of value in Sydenham's chorea (*Semaine Med.*, No. 8, 1892). The beneficial effects are first observed after 60 centigrams have been taken.

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J. G. KIERNAN.

THERAPEUTIC RESULTS OF DIRECT ELECTRIZATION OF THE STOMACH.—Dr. Max Einhorn gives the histories of several cases treated in this manner by means of the stomach electrode. In one case cited by him, of nervous vomiting, a remarkable amelioration ensued after several weeks of galvanization. Pains almost same as before. In three cases of dilatation a constant current was applied with frequent interruptions. In all these cases there was improvement in stomach digestion, notwithstanding that the size of

the stomach did not noticeably change. In five cases of severe gastralgia galvanization alone brought benefit. Other therapeutic measures proved of no value. The author's reason for selecting the negative pole for introduction into the stomach is, that the cathode is understood to produce stimulating action. He presupposes a diminished function either of the secretory nerve, or the nerves which control the carrying along of the contents. The positive pole relieves pain and so this was placed on the part of the skin where the pains were most severe. Cases of relaxation (eructations) and also relaxations of the pylorus were favorably influenced by faradization.—(*Med. Record*, Feb. 6, 1892.)

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B. M. CAPLES.

NEW OBSERVATIONS IN THE USE OF SULPHONAL.—By Dr. S. Grover Burnett.—The point to which the author wishes to call attention is the loss of reflex after large or continued doses of sulphonal, and he cites several cases showing this to have been the condition. He thinks, without a question, there is a close connection between this loss of reflex and inco-ordination, for in no case has he seen any change in the reflex until after symptoms of inco-ordination were manifest. He says, by accepting the reflex theory advanced by Gowers, that sulphonal as an hypnotic acts upon the cells of the cerebral cortex; we cannot account for the absence of the reflex in this case. If from any cause these cortical cells are prevented from exerting their power of control over the centre which inhibits the reflex, this centre goes uncontrolled and holds our reflex in check—that is abolishes it. He thinks this the most lucid explanation, as he has been able time and again to diminish the reflex by continued full doses of sulphonal, and to allow it to appear again by diminishing the dose, or discontinuing it entirely.—(*New York Med. Jour.*, Apr. 9, 1892.)

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B. M. CAPLES.

DEATH FROM COCAINE.—Maurel (*Revue gén de Thérap.*, March 15, 1892) concludes that death from cocaine may be produced by saturation of the blood with this agent, or by embolism.

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J. G. KIERNAN.

SOMNAL: A CLINICAL AND EXPERIMENTAL STUDY OF ITS PHYSIOLOGICAL AND THERAPEUTIC ACTION.—Dr. O. M. Meyers thinks this new drug possesses the properties of a

hypnotic, *par excellence*, without the distressing and dangerous qualities of other drugs of this class, and gives the following summary: 1. Locally, somnal is non-irritant, exerting rather a stimulant effect upon the mucous membrane of the stomach. When applied directly to the heart of the frog it acts as a powerful poison, destroying its electro-excitability. 2. In therapeutic doses the drug exerts no appreciable physiological effect upon the heart and may be regarded as safe. Toxic doses depress that viscus: *a*, by direct action upon the muscle fiber; *b*, by stimulation of the cardio-inhibitory centres. 3. Therapeutic doses have little or no effect upon the pulse-rate. A slight primary rise in the arterial tension may be observed, which soon returns to normal, or may even fall below—the latter probably due to muscular relaxation during sleep. Toxic doses rapidly diminish pulse-rate and pressure; probably due to direct action upon the ganglionic heart-centres. 4. Ordinary doses cause the respiration to become slow and full. Toxic amounts induce rapid, shallow and irregular respiration; the result of depression of the respiratory centre at base of brain. 5. As in therapeutic doses sleep is induced without perceptibly affecting any other portion of the economy, it is fair to conclude that somnal acts directly and primarily upon the cerebrum.

*Therapeutics.*—The indication most promptly and perfectly met by somnal is to induce sleep, and it may be confidently relied upon by the prescriber in all cases where the insomnia is not the result of pain or syphilitic disease. As the nervous element predominates, somnal is the more certain to fulfill the requirements, as in insomnia due to functional over-excitement of the brain after mental strain or anxiety, sleeplessness of delirium tremens, and in maniacal and hysterical disturbances. Its sedative and somniferent action is strikingly efficacious in the insomnia occurring during convalescence from acute disease. Where an adynamic condition exists, it must, of course, be used with caution. In whooping-cough, spasmodic laryngitis, asthma, “nervous cough,” and chorea, it possesses decided sedative properties. A great element of safety is, that the action of the somnal, so far as he has observed, is never out of proportion to the amount ingested, nor does it act in a cumulative or other unexpected manner. The drug appears to possess little or no influence over insomnia due to acute inflammatory conditions.—(*Med. Record*, March 12.)

THE ACTION OF DRUGS.—It is a well-known fact that in the use of many medicines various observers come to quite different conclusions. As a natural result, the skeptic becomes confirmed in his therapeutic Nihilism; yet upon closer examination this difference of opinion is less surprising. Aside from the question of error in observation, the effect of a drug depends upon the preparation employed, the dose and method of application, and, perhaps, even more upon the sex, age and strength of the patient, the course of the disease and other not well-known causes. Perhaps the most potent factor is the idiosyncrasy of the patient, which is, at present, often a mystery to us. Herein lies the key to the understanding of many conflicting results from the use of drugs. Finally, the fact should be emphasized that some inherited taint of the system may be responsible for the difference in the action of medicines; also race peculiarities may play an important part in the conflicting results reported from various countries.—(*From an article on Hyoscine as a Sedative in Chronic Insane Women by Naecke-Hubertusburg. Allgemeine Zeitschrift für Psych., 1892.*)

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JOS. KAHN.

## SURGERY AND TRAUMATIC NEUROSES.

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COMPOUND DEPRESSED FRACTURE OF THE SKULL; APHASIA; FACIAL AND BRACHIAL PARESIS; TREPHINING; RECOVERY.—Dr. Appleyard reports the case of a coalminer, who was working in the shaft of a mine when a sharp-angled stone, weighing about seven pounds, fell upon his head from a height of seven or eight feet. Loss of consciousness for a few minutes; then recovered, and was able with support to walk home, a distance of half a mile. There was a depressed fracture of the parietal bone the size of a broad almond, with the long axis transverse. Had to make several efforts before he succeeded in telling his name. Speech was very difficult to understand. Tongue deviated to the right of middle line. Depression of the right corner of the mouth when at rest. Could not raise the right arm from the bed and had no power of grasp. Loss of strength in the right leg. The wound was enlarged and the quarter-inch trephine twice applied—one complete ring and two-thirds of a second ring of bone being removed. The two tables had been separated by the injury of the diploë. The

inner table was more extensively fractured than the outer, and loose fragments of the inner table were removed from beneath the uninjured outer table. Four hours after the operation patient could raise his arm from the bed. On second day there was no noticeable affection of speech and patient had slight grasping power. Three months after the accident patient said that he felt perfectly well with the exception that the little finger was somewhat numb and useless. Later, the little finger lost its numbness and patient is doing his ordinary work.—(*Lancet*, Feb. 13, 1892.)

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B. M. CAPLES.

FRACTURE OF THE BASE OF THE SKULL.—Dr. Leopold Schiller reports the case of a laborer. While lowering, by means of a rope, an iron column, was struck above the right ear by a swinging column and thrown upon his head against a four-by-four beam. Became unconscious. There was a severe scalp wound, bleeding from both ears, nose and mouth, and there was paralysis on both sides of the face and fauces. Bilateral lagophthalmus and a convergent squint of the left eye, the pupil of which was larger than that of the right and sluggish in action. Severe headache, which continued five or six days, but gradually disappeared. Sensation of dizziness which lasted several weeks. Right side of face soon began to regain mobility, and in three weeks patient was able to close right eye and wrinkle forehead on right side. Left side showed no sign of improvement, but later regained considerable mobility. Strabismus disappeared, but still had dizziness and ringing in the ears, also slight parasthesia of the tongue.—(*Med. News*, Mar. 5, 1892.)

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B. M. CAPLES. 2

FRACTURES OF THE SKULL.—This was the subject of a lecture by Dr. John Ashhurst, Jr. The author's rule is, that in depressed fractures, if the fracture is impacted, there is no occasion for trephining as a primary operation. If the bones are not separated there will be no entrance of air to the parts below. If the parts are not exposed to the air the results are apt to be more favorable. When the depression, therefore, is not so great as to cause separation of the fragments, do not interfere. The old rule, that the surgeon should trephine in all cases of compound fracture, the lecturer considers is not good. If there are convulsions then the trephine should be used.—(*Internat'l Clinics*, Jan., 1892.)

**BULLET WOUND THROUGH THE BASE OF SKULL AND BRAIN.**—Dr. T. J. Walker reports the case of A. B., who was found with a ragged bullet wound at the back of the hard palate immediately to the left of the middle line, and on the top of the head a puffy swelling through which fractured bone could be felt. Scalp freely incised. Portions of the diploë and frontal bone, forming three quadrants of a circle  $1\frac{1}{4}$  inches in diameter, together with a considerably smaller piece of the internal table were removed. Blood and brain substance escaped through the opening, and from the brain below this opening was extracted a bullet weighing 135 grains. Drainage tube inserted and wound dressed with iodoform and Hartmann's wool. Patient remained semi-conscious for three days, temperature not rising above 100. On fourth day suppuration at the back of the orbit commenced, displacing the eye forwards and downwards, and patient became delirious. On the eighth day the abscess discharged itself upwards through wound in the head. The eye gradually returned to its normal position and the patient made uninterrupted progress towards recovery. There is impaired action of the internal rectus and of the superior rectus and levator palpebræ muscles, causing slight strabismus and double vision when the eye is turned in certain directions. Partial deafness of the left ear. The course of the bullet was through the base of the brain just anterior to the optic commissure and internal to the left optic nerve. It must have traversed the whole depth of the first frontal convolution, from the upper part of which it was extracted. Bleeding from the left ear and a permanent deafness indicate fissuring of the base of the skull, and recovery from such an injury must be, if not unique, sufficiently rare to make the case worthy of record.—(*Brit. Med. Jour.*, Mar. 12, 1892.)

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B. M. CAPLES.

**FRACTURE DISLOCATION OF THE SECOND LUMBAR VERTEBRA; LAMINECTOMY; RECOVERY.**—Dr. Moullin reports the case of a man who fell about 25 feet. Unconscious for a few minutes but soon recovered sufficiently to sit up with assistance. Legs were completely paralyzed so far as motion was concerned. Severe pain in back. Sensation only slightly impaired upon the right side; almost lost upon the left. On admission the second lumbar vertebra was found to be displaced forward upon the third, and rotated slightly towards

the left. Patient could flex the right hip and raise knee with foot resting on bed; the quadriceps and all muscles below were paralyzed. On left side loss of power more extensive, patient unable even to move hip-joint. Tactile sensation good over the right side and on left above knee; below it was considerably impaired, especially over the foot. Lower extremities felt numbed and at times there was a pricking sensation in the feet and thighs. For about three weeks condition of patient steadily improved. Knee-jerks remained absent and there was no patellar reflex. The nerves continued to be very tender on pressure, and the muscles below the knees on both sides wasted until there was scarcely any fleshy substance left. Laminectomy was performed. An incision five inches long made at the middle line of the back, and the periosteum and muscles stripped off the spines of the second and third lumbar vertebrae. The spines were then removed with bone forceps and laminae divided with a trephine and the dura mater exposed. This bulged at once into the gap and appeared to be under considerable pressure. The right lower articular process of the second lumbar vertebra, which was twisted round upon the third, was removed. The day after operation patient complained of severe shooting pain in the left ankle. The sensation of numbness had greatly diminished. From the time of the operation patient gradually regained power over the muscles, except the tibialis anticus and the extensors of the toes on the left side. The only inconvenience was the loss of power over the dorsal flexors of left ankle and consequent dropping of the toes, but the muscles were apparently regaining power.—(*Lancet*, Feb. 13, 1892.)

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B. M. CAPLES.

**SURGICAL TREATMENT OF THE INTRACRANIAL FLUID PRESSURE.**—Dr. J. B. Tuke gives the history of a case which is much the same as that of all others which have been trephined for the intracranial pressure following on "general paralysis." So long as fluid can drain there is relief of symptoms, but as soon as the wound heals they return and the disease runs its course. But the mere temporary relief is of considerable interest, and points to inquiry as to whether a channel of permanent drainage cannot be found. It is to be feared that this cannot be secured from the superior surface of the skull. The operation which appears

most likely to obtain thorough drainage of superabundant cerebro-spinal fluid, is laminectomy of the second or third lumbar vertebra, puncture of the loose arachno-pia, and, as suggested by Dr. John Duncan, the insertion into the pial sac of small threads of horsehair. There is no difficulty in opening the arachno-pia; over the bulbus spinalis it is loose and can be easily reached by forceps and knife. Experience in the treatment of spina bifida also shows that a very considerable drain of the cerebro-spinal fluid can be maintained without necessarily serious consequences. It further shows that irritation of the serous sac can be applied with good results. The author is so convinced of the justifiable nature of laminectomy that he would not hesitate to operate in any case coming under his observation. Effusion is a recognized consequence of inflammation of these membranes, and there is no reason for refusing the inference that it occurs in connection with an inflamed pia. Dr. Claye Shaw seems to regard it as a secondary accumulation, by which the author presumes he means compensatory. If that is so, he asks, "Whence the pressure? If there is no pressure, why the necessity of tapping a passive accumulation of serum?" He believes the fluid is a result of an active inflammatory process, and is the immediate cause of the headache and many other symptoms of "general paralysis." Headache is a very prominent symptom in this case. Still, cases do occur in which the indication is really apparently absent. It is probable that in such the effusion is slight and easily carried off, no obstruction to its downward flow being offered by pathological products. Optic neuritis is by no means an infrequent symptom in "general paralysis." If we agree with Gowers that it is a descending inflammation, its appearance or non-appearance may be accounted for on the theory that the inflammatory process has not extended downwards and forwards.—(*Brit. Med. Jour.*, Jan. 16, 1892.)

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B. M. CAPLES.

EPIDURAL HEMORRHAGE; OPERATION; RECOVERY.—Dr. G. Ekehorn reports the following case: C. A. D., 24 years of age, boatman, entered Prof. Berg's clinic Aug. 17, 1890. That evening he was found sitting on the steps of his house, his head on his hand and conscious. He was helped up to his room and soon after became unconscious. A large wound was found on the left side of his head and his hair

soaked with blood. He was fully unconscious when he entered the hospital. A spasmodic contraction would now and then run over the muscles, while slight opisthotonos would set in; this was also produced by either touching or lifting a limb. The right arm was stiffer than the other portions of the body. The right pupil contracted down to the utmost, while the left was greatly dilated; no reaction to light; strabismus; respiration slow, often snoring; pulse 68 per minute. A wound was found on the left side of the head, 8 cm. above the ear, of a round and uneven form and about 2 cm. in diameter. Blood seemed to have flowed out of the left ear and nostril. Urine passed involuntarily. Aug. 18: he is still unconscious, very restless, rolls and twists in bed. His right arm falls paretic when lifted. Pulse 64; temperature in the evening 37.7 c. No vomiting. Aug. 19: his condition unchanged; pulse 56. Trepanation was performed. An incision was made and the bone exposed, by means of a lambdoid flap, which exposed a vertical fissure in the bone. An opening of the size of a quarter of a dollar was chiseled out immediately under the old wound; right under the bone was discovered a layer of clots, 2-3 cm. in thickness and of great extent. These were nearly all removed, it being impossible to get them all away; no bleeding vessel could be discovered. The cavity, which resulted, was filled with iodoform gauze and closed; this was removed on the 23d and the wound had an uneventful and feverless course. As soon as the disc was removed the pulse arose in frequency, going up to 90 beats a minute and then soon after to 100, was full and regular, and it had, one-half hour after the operation, gone down to 74. After the operation the patient was quiet and manageable, asked for a drink, and at 7 o'clock in the evening could turn himself in bed and do any ordinary movement, when demanded. The paresis in the arm had disappeared, together with the stiffness in this and the other portions of the body. Aug. 21: he is completely rational; tries to remember how the accident occurred, yet cannot recollect anything. Sept. 15: discharged well.

The three typical phases of intracranial hemorrhage are rarely so well developed as in this case. Here are presented distinctly, the concussion, an interval of relative improvement, and finally the actual compression. Amongst 257 cases of rupture of the middle meningeal artery, which Wiesman collected from Kroenlein's clinic and literature,

there were 51 in which all three of these stages were distinctly developed, observed and described; 52 times the concussion was absent; the free interval was wanting or not observed in 84 cases, while in 103 cases it was distinctly remarked. In none of the cases mentioned could there be discovered, on operation, any source of the hemorrhage or bleeding vessel. The vessels which could give rise to hemorrhage on fracture of the skull, are the middle meningeal artery, some of the larger venous sinuses, or one of the large cerebral arteries. Hemorrhage from one of the larger arteries of the brain is very rare, and again occurs in cases of very severe contusion where any surgical interference would be of no use. This is doubly true if one of the great vessels, as the carotid or vertebral artery, burst. Amongst the hemorrhages those from the longitudinal and transverse sinuses are only of importance; bleeding from these may dissect up the dura to a great extent and produce cerebral pressure, but the blood pressure in these sinuses is so low that signs of cerebral pressure rarely occur when the sinuses are injured. Hemorrhages from the middle meningeal artery are far more frequent. Prescott Hewett found amongst 31 cases of extensive intracranial hemorrhage that rupture of this vessel had occurred 27 times. Wiesman was able to collect 257 cases of rupture of this artery. Among them there were 137 which came to operation or post-mortem, and in all these the diagnosis was confirmed. This same writer regarded the hemorrhages as of such inferior importance that he did not take the trouble to gather any statistics; hence one may assume that in the remaining cases the source of the hemorrhage was the same artery. The hemorrhage is generally supradural, as in this case, and rarely under this membrane and between the other cerebral coverings; the dura must necessarily burst in order for the hemorrhage to be subdural. Wiesmann mentions several such cases among his statistics. As to trepanation, it is surely indicated when grave symptoms of pressure present themselves. Often the operation is followed by the same striking effect as was seen in this case. v. Bergmann (*Deutsche Chirurgie*) expresses the opinion that in subdural hemorrhage trepanation is not indicated, as the extravasate spreads over a large portion of the surface of the hemisphere and thus removal of the clots becomes impossible. Nevertheless a subdural hemorrhage, according to his opinion, keeps itself within

certain bounds while active absorption takes place. It is possible that this is so in ordinary cases, but, that trepanation was contra-indicated in this case on account of the hemorrhage being subdural, cannot be admitted. Absorption was not sufficiently rapid to stave off the pressure upon the brain, or even keep it within bounds, and the small opening made at the operation was sufficient to remove the clots and blood and save the patient. Without operative treatment the prognosis of meningeal with intracranial hemorrhage is very unfavorable. Amongst 147 which were treated expectatively there were 16, 10.9%, which recovered; that is, nine tenths perished. Amongst 110 cases treated operatively 74, 67.3% were saved, while only 36, 32.7%, or about a third, died.—(*Hygiea*, No. 10, 1891.)

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FRANK H. PRITCHARD.

HEMORRHAGE OF MIDDLE MENINGEAL ARTERY.—Dr. Sutton read notes of a case of fracture of the skull complicated with hemorrhage from the middle meningeal artery, before the Clinical Society of London, Jan. 8th. Trephining led to a successful result. Patient taken to the hospital in an insensible condition. Had fallen upon the pavement and struck his head when drunk. Soon after admission right arm and leg became completely paralyzed. Left side of skull was trephined. Large clot of blood found between the dura and bone. In order to secure the torn artery it was necessary to remove bone freely. By means of an electric search light, a fissure in the bone was found to run from the left limb of the lambdoid suture downwards into the tympanum and across the petrous portion of the temporal bone. At this spot the dura was lacerated and the subdural space opened. After the operation motor power returned in the paralyzed limbs, cerebro-spinal fluid escaping during four days. Patient quickly became conscious and made an uneventful recovery.—(*The Lancet*, Jan. 16, 1892.)

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B. M. CAPLES.

SUBDURAL HEMORRHAGE.—Exhibited by Dr. Openshaw before the Hunterian Society, Jan. 27th. Patient, aged forty-two. Fell and struck his head. For three days he complained only of severe pain in the head. On the fourth day became delirious, and on the fifth fits commenced to appear. Dr. Openshaw saw him soon after the fits had begun. From the character of the fits and from

the increased depth of the incoming coma, author was led to diagnose hemorrhage within the cranial cavity, causing pressure, and operated immediately. Flap was turned down from skull, and as no signs of fracture were apparent trephine was applied. The dura mater bulged into the trephine hole. It was incised and five ounces of blood-clot and serum were removed. The patient made a rapid and satisfactory recovery with the trephined piece of bone growing in situ.—(*Lancet*, Feb. 20, 1892.)

B. M. CAPLES.

APHASIA DUE TO SUBDURAL HEMORRHAGE WITHOUT EXTERNAL SIGNS OF INJURY; OPERATION; RECOVERY.—Drs. L. Bremer and N. B. Carson of St. Louis report this case. The patient was a healthy man, who, while intoxicated, fell and struck his head. About a week after this he suddenly fell on the street and was unconscious. On being taken home he was able to dress himself, and went to bed shortly afterwards. He had difficulty in speaking, which was more marked in the afternoon, when he had a temperature of 101 degrees. In the forenoon, when he had no fever, he spoke better. Upon examination the patient was found to have motor aphasia. There was apparently no paralysis. On being told to alternately flex and extend the right index finger there was an associated movement of the other fingers. All forms of sensation on the right side of the body were impaired. Patient could not write words or letters, but could write figures. There was some evidence of facial paralysis. Diagnosis: an extra-dural blood-clot pressing upon the third left frontal convolution, and upon the tongue and face centres of the left hemisphere. Upon examination the blood-clot was found beneath the dura imbedded under the anterior branch of the middle meningeal artery. The greater part of the clot was removed by a curette. The patient entirely recovered. Six months after the operation patient was well and at work at his trade as a brick layer. Commenting on this case Dr. Bremer says: "It will be remembered that the diagnosis of extra-dural clot had been made. This was done on account of the insignificance of the initial symptoms and of the comparatively slow development of the graver ones. *A priori*, it stands to reason that a hemorrhage between the skull-bone and the tough and unyielding dura is apt to be more limited, and to produce less rapidly cerebral symptoms than sub-dural hemorrhage,

although it is a well-established fact that just in the neighborhood of the meningeal arteries the dura is less firmly attached to the bone than elsewhere. Besides, in the vast majority of ruptures of a middle meningeal artery, or its branches, the hemorrhage takes place upon the dura. For these reasons the diagnosis of extra-dural clot seemed to be the more likely one. This was a mistake, and, I believe, a mistake that could have been avoided on the ground that probably all meningeal hemorrhages due to indirect violence are sub-dural. This point will be enlarged upon further on. This is not the place to discuss the necessity or justifiability of trepanation for blood-clot. In our case there was a vital indication for operative interference. Whether in a number of other cases it would be safer to trust to the healing and absorbing powers of the membrane and adopt the expectant plan, is a question as difficult to solve as the propriety of operating in given cases of appendicitis and ileus. But the concurrent testimony of the surgeons of to-day is in favor of operation, even where less urgent symptoms are present. Even with much less extensive hemorrhage than in our case, the outlook as to complete absorption is far from favorable. Epilepsy and mental impairment are the usual sequelæ of neglected blood-clot in the brain, and it is certainly much more in keeping with the principles of conservative surgery to operate early and remove the possible, and even probable cause of epilepsy, than to wait until the latter has declared itself, and the epileptic change has taken place in the brain.”—(*The Amer. Jour. of the Medical Sciences*, Feb., 1892.)

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JACKSONIAN EPILEPSY; TREPHINING; REMOVAL OF TUMOR AND INCISION OF CORTEX.—The case is reported by Drs. Charles K. Mills and W. W. Keene.—Patient was a female, 27 years of age. The Jacksonian epilepsy was first manifested by attacks of left hemi-paræsthesia, which four or five years later developed into spasms, involving the left upper and lower extremity, but more marked in the former. At first the spasms were confined to the left side, but later attacked the right arm. Sometimes had six or seven during 24 hours. In commenting on this case Dr. Mills says: “At the time of the operation the general impression of those present was that the small growth was a large isolated Pacchionian granulation, which had perforated the dura and eroded the inner wall of the skull. The microscopical

examination throws a doubt upon that view, and makes it more likely that after all we had a neoplasm of very small size; but perhaps without further investigation the question may not be regarded as absolutely decided. If the growth was sarcomatous, other sarcomatous foci may be present in the brain; and it was in part because of the suspicion that a subcortical mass might be present that the cortex was excised. It is not improbable that the other hemisphere may contain a growth, as the localizing symptoms were at times confusing. The patient had clonic spasms of the right arm, although, as has been stated in the clinical history, the symptoms began on the left side and the attacks were initiated by both sensory and motor disturbances on this side. Since the operation right-sided spasms have often been a striking feature.

Supposing that the small tumor was a Pacchionian formation, it would be by no means certain that this had not to do with the causation of the spasmodic phenomena; and still another view that might be taken is: that such a formation had resulted from the frequent and long-continued localized cortical discharges with their accompanying hyperæmia. The question of Pacchionian formations in general, and particularly of those which we sometimes see either isolated or in small groups, may have some importance in connection with the subject of cortical epilepsy and paresis. The nature of these granulations is probably still an unsettled matter. Little, at least in late years, has been written about them; but an interesting article is that by W. Browning,\* from which I may cull a few facts and views applicable to the present case. These formations grow from the pia-arachnoid, both over the sulci and over the crests of the convolutions. It seems to be universally admitted that these formations are limited to certain parts of the pia-arachnoid, showing a decided preference for the sides of the longitudinal sinus and its vicinity. Some, but not all, of these granulations are connected with the veins and sinuses. Other structures connected with them are the parasinoidal spaces, which occur along the sides of the longitudinal sinus, and are of the largest size at the crown of the head. Browning suggests that these are important accessories to the veins and sinuses as regulators of the cerebral pressure. Sometimes the Pacchionian granulations and parasinoidal

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\**The American Journal of the Medical Sciences* (N. S.), lxxxiv., October, 1882, p. 370.

venous spaces are combined and connected. When venous spaces are present the granulations are not likely to cause depressions in the skull. It would seem from these facts, that whether a Pacchionian granulation would or would not cause greater or less cortical irritation might depend upon its peculiar location, and the presence or absence of venous spaces into which it could grow. A growth such as was found at this trephining may have caused considerable irritation.

On the other hand, as already intimated, such a formation may have been the result of repeated discharges of the adjacent cortical area. As Browning states, and as I can verify from abundant experience at the Philadelphia Hospital, many morbid conditions may favor the development of these bodies, one of which of great importance is chronic alcoholism. This writer also states that in cases of brain tumor an excessive development of these Pacchionian bodies has often been found. They have often been found in adults and children suffering from meningitis, and probably some granulations, particularly those associated with meningitis, may be inflammatory in origin, and in reality somewhat different from the usual Pacchionian growths. Formerly they were all regarded as inflammatory. Browning shows, that, while much evidence may be had in support of hyperæmia as their cause, some facts do not harmonize with this hypothesis. He holds rather to a mechanical cause, depending in some way upon the ebb and flow of the blood of the veins just above the sinuses. It is not hyperæmia of the venous blood as such, but the blood acting as any other fluid of its consistence would do. Some clinical symptoms have been attributed to Pacchionian granulations, but only a few can with any positiveness be regarded as due to these formations. Browning refers to cases where such granulations were present near the Gasserian ganglion and the motor nerves of the eye, causing ocular neuralgic and paretic symptoms. Meyer refers various neuralgias to them. Headaches have been attributed to them in some instances, but with doubtful propriety. Possibly they may cause sinus thrombosis. They sometimes produce little flat elevations of bone along the median line of the crown of the head. I do not know of any record of cases of spasm, local or general, which could be clearly attributed to Pacchionian bodies. Browning refers to a varix of the sinus longitudinalis which he

believed developed from the parasinoidal spaces, and quotes a case from Meschede in which a patient had suffered from epilepsy for thirty years, and after death a varix the size of a bean, which had reduced the bone to paper thickness, was found."—(*Am. Jour. of Med. Sci.*, Dec., 1891.)

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WHAT CAN WE EXPECT FROM THE SURGICAL TREATMENT OF EPILEPSY.—Dr. B. Sachs has a valuable communication in the *New York Med. Jour.* of Feb. 20, and the following are some of his conclusions: "1. In a given case of traumatic or organic lesion operate as early as possible to prevent the development of secondary sclerosis. 2. If you have not operated at the outset, the onset of epilepsy is a warning that secondary sclerosis has been established; by operation at this time you may avoid an increase of the trouble. 3. Excision of the diseased area is the only rational operation. If all other centres are not in an irritable condition the operation may be thoroughly successful. If we cannot easily cure epilepsy, we may improve the patient's condition by diminishing the number of attacks. Traumatic cases call for immediate surgical interference. As trepanation is not a very dangerous operation it would be better to do this than to have the slightest doubt. He thinks, under favorable conditions, and by the methods described in his article, the surgeon may be able to cure a few cases of epilepsy. He will be able to improve many, but surgeons and neurologists should in the future make an earnest effort to *prevent* epilepsy.

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B. M. CAPLES.

THERAPEUTICS OF TRAUMATIC EPILEPSY.—The most promising cases for operative interference are the cases of pure cortical traumatic epilepsy. These cases may present one of the following symptom-groups, although transitions are not rare: 1. At a period varying from weeks to years after the receipt of an injury, muscular spasm, constant in situation and typical in extension. 2. The occurrence of unilateral paresis, or paralysis, in an extremity or the face. 3. Disturbances of the sensory sphere. Traumatic epilepsy may vanish spontaneously, as by the absorption of clots or the disappearance of inflammatory exudates. In cases of general and atypical epilepsy an exploratory uncovering of the cortex is permissible. In cases of unilateral epilepsy, temporary craniectomy may be made, even if no trauma-

tism had been sustained. Traumatic focal spasm furnishes an urgent indication for this operation. Excisions of the cortex should be made when visible pathological changes are found in it (cysts, cicatrices, neoplasms), as well as when these changes can only be surmised, if the involved muscles are paralyzed. In the latter case no harm can be done, even if the operation be unsuccessful. As the paralyses resulting from excisions of the cortex are usually transitory, the dangers of excision are not so great as might be supposed. The frequency of relapses has not been determined. The author recommends exact localization upon the exposed cortex by means of the faradic current.—(PROF. WÖLFLE, *Wien. Med. Wochenschr.*, No. 44, 1891.)

G. J. KAUMHEIMER.

HYPOGASTRIC NERVE SECTION AND THE BLADDER.—Dr. Lannegrace states (*Prog. Med.*, April 9, 1892) that simultaneous section of the two hypogastric, or lumbar sympathetic nerves, has no effect upon micturition. The bladder retains its responses and tonicity. Trophic changes do not result. Section of the medullary nerves always produces retention which ceases in about three days. The cause of this retention is to be found in a resistance coming on in the neck. The animals may live indefinitely, although motricity and sensibility are evidently diminished, since the animal urinates upon a higher intra-vesicular pressure than can be normally endured. The urine is normal. The bladder has vascular and trophic disorders. The veins are dilated. There are punctate and patch ecchymoses, epithelial erosions, or even superficial ulceration from which hæmaturia results. The submucous tissue is œdematous and infiltrated with round cells. The lymphoid exudation may spread to the muscular layer. The use of sounds, even when aseptic, in animals, causes the urine to become ammoniacal and sanguinolent. The bladder becomes paralyzed and profuse hemorrhages result, frequently causing death. Sub-acute cystitis often results. Section of these nerves, hence, predisposes to contamination. Simultaneous section of the lumbar and sacral nerves results in urinary retention, which lasts from three to six hours, and is due to constriction of the neck and paralysis of the walls. The same trophic lesions result as those just mentioned. One-sided section of lumbar and sacral nerves has no appreciable effect.

J. G. KIERNAN.

RESECTION OF THE POSTERIOR BRANCHES OF THE FIRST THREE CERVICAL NERVES FOR SPASMODIC WRYNECK.—Dr. Charles A. Powers reports a case upon which he operated. The patient's head, when left to itself, was spasmodically rotated to the right to its fullest extent. Patient could carry it back by pressing the chin over with the hand, but when the restraining force was removed it was immediately jerked back to its rotated condition. Spasms were constant during the day, but worse when the patient was fatigued, irritated, surprised or among strangers. The spasmodic movement seemed to be a rotation of the atlas upon the axis. The patient said that he "felt jerks in the deep muscles at the back of the neck." A three-inch transverse incision was made at the back of the neck, beginning at the median line an inch and a quarter below the external occipital protuberance and running forward; enlarged to  $4\frac{1}{4}$  inches in length. Following down beneath the complexus the external branch of the posterior division of the third cervical was found. This was followed back to the bifurcation of the main trunk. One had at command, then, the nerve supply of the inferior oblique, the rectus capitis posticus major, the splenius, and the three posterior rotators, the first being supplied by the first and second cervical, the rectus by the suboccipital from the first cervical, and the splenius by the second and third cervical. Each nerve was followed well back to the spine and a half or three-quarters of an inch excised. The operation consumed nearly two hours. On coming out of the anæsthetic, patient had no spasms of the neck. Head was in median line and remained there until the final removal of the dressings. At this time there were a few slight spasms, but they did not persist. The head is carried in a position of rotation to the right. Voluntary rotation to the right normal. The patient has no pain or spasmodic movements. The deformity is but slight; the movements of the head have disappeared; there has been no return of spasms, and he is able to attend to his daily work, which was impossible before the operation.—(*New York Med. Jour.*, Mar. 5, 1892.)

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B. M. CAPLES.

TRAUMATIC PARALYSIS OF THE RIGHT HAND; SUTURE OF THE ULNAR NERVE; RESTORATION OF THE FUNCTIONS OF THE HAND SUPPLIED BY THAT NERVE.—Dr. I. Corsin reports the case of a man 20 years of age, who injured his hand

severing the ulnar nerve. Several days afterward he entered the hospital and had the ends of the nerve united. A large wound was found extending from the ulnar side of the arm into the carpus. The patient was anæsthetized and the ends of the severed nerve found and sewed together. An electric current was passed through the nerve and thus the apposition of the ends was assured, as the muscles supplied by the nerve responded. The result was good; the sensibility returned and finally motility began to be restored. Electricity was used, and a month and a half after the operation he could be considered cured.—(*Spitalul*, No. 2, 1892.)

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FRANK H. PRITCHARD.

RESECTION OF THE INFERIOR MAXILLARY NERVE.—Dr. V. Vamossy reports a case treated by Zuckerkandl's method and describes the operation as follows: "The incision is made on a line drawn from the tragus to the middle of the nasolabial fold, so that one-third of its length is over the masseter and two-thirds in the cheek. Cautiously dissecting down to the fascia of the masseter, Steno's duct and the facial nerve are to be drawn aside. After the moderate hemorrhage has ceased, the fascia is opened and the fat removed with forceps and scissors. There is now a cavity, whose bottom is the buccinator, and which is bounded behind by the internal pterygoid and without by the masseter muscle, the ascending ramus of the jaw and the tendon of the temporal muscle. At the posterior part of the latter the nerve is found. It is easiest found by tracing back the branch which is found at the bottom of the wound upon the buccinator muscle. From 2 to 2½ cm. of the nerve should be excised. V. reports a successful case. The only drawback of the operation is its bad cosmetic result."—(*Wien. Med. Presse*, No. 48, 1891.)

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G. J. KAUMHEIMER.

SURGICAL TREATMENT OF EXOPHTHALMIC GOITRE.—Dr. H. Dreesmann gives a resumé of the published cases of this disease treated by operation (mainly by strumectomy), and adds three cases treated by Kocher and Trendelenburg by ligation of the thyroid vessels. In general it may be said that the results of an operation are good, taking into consideration the frequent total inutility of medical treatment. The exophthalmos, tachycardia, tremor, cardiac dilatation and struma, are all more or less benefited, even to complete

recovery. This was the result in three cases reported by Dreesmann, although he states that improvement is slower after ligature of the vessels than after operative removal of the gland. Avoidance of mental excitement and the use of tonics, especially of arsenic and electricity, are excellent adjuvants after any operation.—(*Deutsche Med. Wochenschr.*, No. 5, 1892.)

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G. J. KAUMHEIMER.

A CASE OF EXOPHTHALMIC GOITRE CURED BY AN INTRANASAL OPERATION.—Dr. A. Musehold adds a case to the few hitherto reported. His patient presented all the symptoms of the disease except the exophthalmos. On removing an hypertrophy of the posterior end of the right lower turbinated bone, the entire train of symptoms promptly subsided, the palpitation disappearing completely by the fifth day. Within five weeks the circumference of the neck had diminished from 40 to 36.5 cm. In a paper published in the same number of the *Deutsche Med. Wochenschr.*, (No. 5, 1892) and noticed elsewhere in this journal, Mendel passes very slightly and skeptically over the reported cases of this kind.

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G. J. KAUMHEIMER.

TREATMENT OF CONGENITAL SPASTIC PARALYSIS.—Prof. Lorenz exhibited a patient, aged 17, the subject of this disease. The spasm involved especially the muscles on the posterior aspect of the lower extremities. The knees were bent at an obtuse angle. The feet were in an equinus position, the right a varus, the left a valgus. Walking, even with the aid of two canes, was very difficult. These cases can easily be grouped into three varieties. 1. The most common cases affecting the extensors of the foot. 2. Cases with spasm of the adductors, which may be combined with spasm of the flexors of hip and knee and of the extensors of the foot. 3. Spasm of the knee flexors, usually combined with spastic equinus. In spite of the indubitable loss of muscular power, these patients create the impression, when walking, that they are suffering from an excess of undirected muscular power. In order to eliminate the influence of the spastically contracted muscles, Lorenz has performed tenotomy of the tendo Achilles in many cases, and has always attained a plantigrade walk without relapse. In four cases of spasm of the adductor muscles of the thigh, he has resected

both the superficial and deep branches of the obturator nerve with good effect. In the case of flexor spasm of the knee, neurectomy is not practicable for obvious reasons. In these cases he has performed tendectomy of the affected muscles. In the patient presented, both Achilles tendons were cut and the feet fixed in a calcaneus position, then the tendons of the internal hamstring muscles were resected on both sides to the extent of 1.5 to 2 cm., and the biceps tendon divided subcutaneously, all at one sitting. The knees were fixed in extension. Patient was dismissed with an apparatus, and a year after the operation, was able to walk easily, although still requiring two canes. The walk was plantigrade, and he was able to flex and extend the foot.—(*Wien. Med. Wochenschr.*, No. 45, 1891.)

G. J. KAUMHEIMER.

## PSYCHOLOGICAL.

### PATHOLOGY AND SYMPTOMATOLOGY.

“NERVOUS WOMEN, OR NEUROTICS,” are, according to Dr. A. DesChamps (*Bull. gen. de Therap*, Feb. 13, 1892), women in whom an exaggerated sensibility exists, but who are not sufficiently endowed with power to direct their will. They are divisible into three categories according to the predominance of one of three centres: cerebral, genital and spinal (motor or sensory.) Thence result the three principal classes: cerebral, genital (or sensual), and neuropathic (sensory or motor). These types may be pure or intermixed. The general characteristics are an absolute want of equilibrium in sensibility and will power. There exists a mobility of humor in direct relation with facile impression, ability to external influences (external ideas or perceptions), or to internal states (intrinsic ideas). The nerves vibrate to all sentiments coming from within or without, and all are registered without proper relation. One fact chased by another is forgotten. Another produces a momentary hyperexcitation, which takes the place of the truth, whence it is that falsehood is instinctive, but the patient protests her good faith if accused of the same. This lack of equilibrium leads to decided modification of the mental faculties. Intellectual activity is over-excited, but in diverse degrees and variable ways according to the particular ten-

dencies adopted. Absorbed by a pre-occupation or controlled by an idea, they become indifferent to all else. Their ideas are abundant and they rapidly pass from the idea to the act. Their vivid imagination coupled with a bright intelligence, gives them a seducing aspect, but their judgment is singularly limited, attenuated or false. They judge from a non-personal standpoint excellently. They are quick at discovering the faults of even their own relatives, but faults rightly attributed to themselves are repudiated. Their memory is capricious. They forget their faults and their acts done under impulse, albeit these may be consciously done. If these cases be assignable to any psychosis it must be to the insanity of character, or reasoning insanity of old authors. The cerebral type is led by the intelligence. She ignores what passes in the sensorium commune. She has little or no coquetry; what coquetry there may be is the result of intention, and temporary. There is an ethical sense, frankness and nobility in her ideas, disinterestedness and tact in her acts, and she is capable of friendship. Her tastes carry her to make pursuits in which she succeeds. She becomes often what is called a "superior woman," and too often what is called an "incomprehensible woman." She has but little guile. To the sensual type voluptuousness is the aim of life and the centre of her acts and thoughts. She is well endowed with guile and extremely diplomatic. She is full of finesse, but not very delicate; her lack of scruples spoils her tact. She is ruseful, dissimulating and unconsciously mendacious. She despises friendship and needs watching. If circumstances permit, she loses all delicacy, reserve and modesty. She is destitute of scruples. Her crimes are coolly remorseless. The neuro-pathic type is one to which the grasshopper is a burden. Her nerves are always on edge. She is an heroic invalid who displays the air of a martyr about trivialities. The character of the neurotic recalls the observation of Milne-Edwards anent the monkey character. Levity is one of its salient features and its mobility is extreme. One can get it to shift in an instant from one mood or train of ideas to another. It is now plunged into black melancholy, and in a moment may be vastly amused at some object presented to its attention.

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J. G. KIERNAN.

THE SENSIBILITY OF WOMEN.—Lombroso has studied the tactile sense in a hundred females and found it in the

adult (not in children) more obtuse than in the male, corresponding to the experience of Erb who found the pain sense less developed in women. This has been confirmed by the experience of surgeons and dentists. This explains the greater resistance of women in case of wounds, and also the existence of prostitution, the greater severity of social laws as regards the sexual relations of females, and the longer average of life in women, especially after the critical period.—(*Archivio Italiano per le Malattie Nervose*, Nov., 1891.)

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AN INQUIRY AS TO THE PHYSICAL AND MENTAL CONDITION OF SCHOOL CHILDREN.—Dr. Francis Warner in a lecture upon this subject, gave his experience of the unsatisfactory character of the signs in physiognomy, craniology, etc., when unsupported by signs of the more direct physiological action of the nerve system. As all expression of nerve states and mental action is by movement and results of movement, it is by logical analysis of the nerve signs corresponding to such visible expression that we may hope to demonstrate the kinds of nerve action which correspond to mental states. He says that at birth the nerve centres act slowly and independently of one another, and the time and order of this action is not determined through the senses. At the age of five or six months their action may be temporarily suspended by external stimuli, and during the time when no efferent currents are passing from them to produce visible movements, they undergo a change, subsequently indicated by new and special co-ordinated movements. When a year old, action well adapted by impressions received becomes very marked, and the child makes certain characteristic sounds on sight of certain objects. Its spontaneous brain-action becomes gradually more and more capable of co-ordination. It appears that at birth the most marked character of the nerve centres is the spontaneous action of individual foci of nerve tissue, and in advancing evolution this spontaneity is not lost, but remains as the foundation of so-called voluntary and intellectual action, becoming more controllable by circumstances. Aptitude for mental action appears to depend upon the capacity of nerve cells for control through the senses, such impressions temporarily inhibiting their spontaneity and arranging them functionally for co-ordinated action. It may be shown that well-co-ordinated visible movements usually accompany well controlled mental action, while a spreading area of movement

not controlled often accompanies mental confusion. In observing conditions of development and physiognomy as indications of probable conditions of mental status, the assumption is made that visible conditions of defect in form more or less necessarily coincide with defective brains. It is very common to see disordered conditions of the nerve system in children with defective construction of body, but these nerve disturbances may also be seen in children of normal construction of body: such signs would appear to result from the disorder produced by special circumstances rather than the mere defects in original construction. Children fatigued and in a condition of chorea may be described. Among the signs of fatigue is the slight amount of force expended in movement, often with asymmetry of balance in the body. The fatigued centres may be unequally exhausted, spontaneous finger twitches like those of younger children may be seen, and slight movement may be excited by noises. Head often held on one side. The arms when extended are not held horizontal; usually left is lower. In regard to nutrition the author thinks it is not sufficient evidence to look at the face only. This part may be well nourished and yet the limbs thin. Nearly three per cent. of children seen are so far defective as to be usually of low nutrition when seen in school. It appears that these children are of lower general constitutional power and tend to an ill-nourished condition under the stress of life and the many causes of mental excitement, which, while they render them sharper mentally, militate against nutrition of the body and its tissues.—(*Brit. Med. Jour.*, Mar. 12, 1892.)

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B. M. CAPLES.

CONTRIBUTION TO THE STUDY OF PUERPERAL PSYCHOSES.—R. Olshausen (*Zeitsch. f. Geb. Bd.* 21) has observed psychoses 11 times following eclampsia among 200 cases of the latter in the last  $5\frac{1}{4}$  years. They occur early (2 to 4 days, seldom later) and are marked by the constancy of hallucinations, rapid afebrile course and generally favorable termination. They are, doubtlessly, intoxication-psychoses, closely related to uræmic changes in the blood. He suggests the following classification: 1. Psychoses, directly due to febrile puerperal processes (infection-psychoses). 2. Idiopathic psychoses without bodily or febrile disease (lactation, acute anæmia). 3. Intoxication-psychoses, follow-

ing eclampsia, or, exceptionally, uræmia, without eclampsia.—(*Deutsche Med. Wochenschr.*, No. 1, 1892.)

G. J. KAUMHEIMER.

MORBID INTERCOMPLICATIONS IN MENTAL PATHOLOGY.—Dr. Ballet (*Gaz. des Hop.*, April 14, 1892) points out that the intercomplication of a psychosis by a neurosis, or an intoxication, produces bizarre symptoms, the resultant type being peculiarly difficult of determination as to its nosological relation. Sometimes states of uncertainty as to pre-existing delusions result in degenerate cases. At times the psychical symptoms of the neurosis, or intoxication, are uppermost, and when these disappear the underlying psychosis comes into play and is seemingly derived from the octus complicating it.

J. G. KIERNAN.

SPINAL LESIONS IN DEMENTIA.—Petrazzani and Vassale, (*Revista Sperimentale* XVII., IV., 1891) after briefly reporting the findings in the spinal cords of a number of cases of secondary, degenerative and senile dementia, conclude as follows: "From our researches it appears that spinal lesions are quite frequent in the various forms of dementia; out of 22 cases examined we found them in 11. The lesions were certainly not due to age, as any one can satisfy himself from the report of our cases. We will add, that having examined the cords of two elderly individuals, yet sane and vigorous in mind, who died of fibrous pneumonia at the ages respectively of 70 and 74, we found no lesions whatever."

"In dementia the degeneration, as a rule, takes place in the posterior columns, and the lesions are not very pronounced. In 11 cases with positive results, the seat of the lesion was as follows: In one case, degeneration of the lateral (crossed pyramidal) columns; in two cases, degeneration of the posterior radicular zone in the upper dorsal region; in one case, the same zone in the middle dorsal region; in two cases, degeneration of the same tract throughout the whole dorsal region; in five cases there was degeneration of the columns of Goll in the cervical region and of the radicular zone in the dorsal region; in one case, involvement of the columns of Goll, not only in the cervical, but also in the dorsal region, where it was also associated with degeneration of the posterior columns."

H. M. BANNISTER.

PARETIC DEMENTIA AT FOURTEEN.—Charcot (*Archives de Neurologie*, March, 1892) reports a case of paretic dementia in a lad of 16, which made its onset at the age of 14. The physical symptoms were well marked, but there was merely a quiet dementia. Worry over school standing exerts an influence in the production of these cases.

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J. G. KIERNAN.

CEREBRAL SYPHILIS AND DEMENTIA PARALYTICA.—Binswanger discusses this question in a monograph and sums up as follows: 1. Can clinical differences be detected between the mental disturbance of cerebral syphilis and dementia paralytica? Errors are not uncommon. B. points out that in syphilis, the affective in dementia, the intellectual functions are first involved. 2. Is an etiological connection between these two diseases clinically and anatomically demonstrable? The author thinks that it is, and explains the absence of specific changes by the action, not of the contagium of syphilis, but of a chemical "syphilotoxin." 3. The question whether there are demonstrable differences between post-syphilitic paralysis and that of different origin the author answers in the negative.—(*Wien. Med. Wochensch.*, No. 43, 1891.)

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G. J. KAUMHEIMER

GIVEN NAMES IN PSYCHIATRIC DIAGNOSIS.—Dr. E. Laurent states (*Revue del' Hypnotism*, Feb., 1892) that when a person bears a pretentious given name for which no rational origin can be assigned, it is safe to assume that the parents were feeble-minded or degenerate. During his examinations in a little village in Champagne, Dr. Laurent found that the universal suffrage enthusiasts called their children either Gambetta or Danton. A girl named Lætitia Cymodocea had for father a drunkard and for mother a debilitated alcoholic. A boy named Virgile Anvour had for father an obtrusive, pretentious imbecile and for mother an imbecile woman, who herself had a nephew named Nestor-Ovide-Onesiphore. The Georgia "Crackers" afford multitudinous instances of the same pretentious use of given names.

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J. G. KIERNAN.

HANDWRITING OF THE INSANE.—Marcé Brierre de Boismont and Tardieu claim, according to Seglas (*La Tribune Med.*, No. 45, 1891), that the handwriting of the insane should be examined both from the chirographical standpoint and from the standpoint of the contents of the written matter. One

of the first modifications is in the rapidity of the chirography. Among the persecutory delusional lunatics the hand-writing may be strong, hasty and voluminous. Others go to the opposite extreme. They write slowly, form their letters with difficulty, and when arrived at the middle of a word often leave it incompleted. They know how to write, but are incapable of fixing their attention. Others display mutism in chirography. Among the agitated the hand-writing often displays the disorder of the thoughts; the lines are indecisively traced, ascending, wavy, running a thousand ways and superimposed upon each other. Some are illegible from erasures and blots. The writing may be extremely fine and interwoven. Capitals may be excessively used. Underlined words with others in printed letters or in capitals, read together, may constitute the résumé of a letter, as in the case of a patient who wrote, "If time presses read only the capitalized words". The letters are sometimes badly or partly formed. Accentuation and punctuation may be lacking, or there may be a rain of accents and punctuation marks; the exclamation point is most subject to abuse, next, that of interrogation. Some letters are specially marked, as in the case of a patient who made his i's in the shape of a cross. The orthography may be specially modified. One patient placed after the consonants l, f, and r before a, an h, and spelled acquire, hegreire. Abuses of the infinitive and substitutions of the third for the first person occur. The modifications of the contents are most important. As in their speech, the insane in writing often betray their favorite delusion (thematic paralogia of Kussmaul) and repeat certain stereotyped phrases. The maniacs are as incoherent in emotional expressions in writing as in their speech. Other patients employ paraphrases to express their sufferings, and abuse pleonasms, synonyms and adjectives to qualify persons or things, as, "mortal human man." Melancholiacs use curt phrases. Dements are absurdly incoherent, omit words and make grave errors in date. Often enigmatical proverbial expressions are used to indicate delusion. Puns are often used (See *Review of Insanity and Nervous Disease*, Vol. II). There are often intercalated in the wordings of the insane syllables, words and even phrases, sometimes without apparent significance and at other times of a symbolic importance. A sort of a cabalistic or exorcistic phrase is often repeated every few lines which is intended to check the persecutors who seek to interrupt the patient's thread of

thought. Sometimes there are rude rhymes, assonance, charades, symbols, cabalistic figures. Some writings approximate hieroglyphs, cuneiform letters and Chinese tea box signs. Signatures are often expressive of delusions.

J. G. KIERNAN.

SUDDEN DEATH AND DEGENERACY.—Culléré (*Ann. Medico Psych.*, Jan., Feb., 1892) has recently endeavored to show that sudden death is a stigma of degeneracy. He cites 18 cases in which sudden death resulted without antecedent known cause, and in which nothing was determinable to explain the death. In the ancestors and descendants of these 18 patients, neuroses and psychoses occurred with such frequency as to indicate a family degeneracy. He divides the cases into 3 groups. The first includes cases in which vesanic heredity is evident. One of these was as follows: A 23-year-old man died suddenly; of his 3 sisters one is hysterically insane; one is a hebephreniac and one is a cyclothymiac (circular lunatic); a brother has a very bizarre character. The second group includes cases where paretic dementers have relatives who die suddenly. In the third group, epileptic ancestors and descendants are found in the families of persons dying suddenly. A probable explanation of the first and last types is to be found in abnormal relations between the inhibitory and excitatory cardiac mechanism. The paretic dement type is due to apoplectiform tendencies. To these Culléré refers all three types.

J. G. KIERNAN.

RABIEFORM INSANITY CONSECUTIVE TO "GRIP."—Dr. Lapreyre (*Jour. de Med. de Paris*, March 13, 1892) reports the case of a 49-year-old man in whom crises of an acute hallucinatory confusional insanity resulted consecutive to "grip." The patient had an aura which preceded the crises. He howled like a dog precedent and during the crises. There were laryngeal spasms. He ordered away any person who approached him during the crises. Mimicry of hydrophobia is far from infrequent. Hazard has reported rabieform alcoholism (*St. Louis Clin. Record*, Vol. VII.), and Kiernan (*Chicago Medical Review*, Vol. III., 1881) and Spitzka (*N. Y. Medical Record*, Dec. 31, 1882) have reported cases of rabieform epilepsy. Dulles (*Trans. Pa. Med. Soc.*, 1884-5-6-7) has reported an immense number of cases where various psychoses mimicked rabies.

J. G. KIERNAN.

IMPERATIVE CONCEPTIONS.—Dr. B. Ball (*Jour. de Med. de Paris*, Feb. 14, 1892) says that the essential characteristics of these are, their recognition as morbid phenomena by the patient, their sudden unannounced occurrence, their paroxysmal character, their tendency to recurrence, their non-transformation into other morbid mental phenomena (see for proof to the contrary *Review of Insanity and Nervous Disease*, Vol. I.), the satisfaction resultant on the accomplishment of the act indicated by the conception, and, finally, the accompanying physical gastro-cardio-pulmonary phenomena, which the Germans call pneumogastric phenomena.

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J. G. KIERNAN.

THANATOPHOBIA AND SUICIDE.—Dr. Nicolau (*Ann. Medico-Psych.*, Mch., Apr., 1892) points out that thanatophobia (fear of death) is far from an infrequent imperative conception among the degenerate, and that it may lead to suicide to escape the resultant anguish over the thanatophobia, the abnormal nature of which is recognized by the victim.

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J. G. KIERNAN.

PAIN REFLEXES OF PSYCHIC ORIGIN.—A. Raggi (*Archivio Italiano* XXVIII., Fasc. V. and VI., 1891) concludes a paper in which he discusses the physical pains that accompany, and are caused by, mental action, and describes three interesting cases, with the following general conclusions. "1. The pain reflexes of psychic origin are produced by different mechanisms, according as they pertain to the intellectual (perceptive, ideation), or the affective (emotional) spheres. 2. In the first case they are directly of perceptive or ideational origin, and in the second of emotional derivation. 3. The pain of perceptive or ideational derivation is directly connected with the psychic processes, of which it may be considered an immediate transformation, while the other is only the result of organic conditions that accompany the emotion. 4. Sufficient differential characters for the distinguishing of the double nature of pain reflexes of psychic origin; the intellectual ones being of instantaneous formation and of short duration, while those of emotional origin are, on the other hand, relatively slow in production and of more or less protracted duration. 5. The pain reflexes of perceptive origin can, for the most part, be distinguished from the ideative ones by their greater intensity. 6. Pain reflexes following hallucinations (when observed) may acquire an intensity such as is the case with those of true

perceptive origin. 7. While the emotional pain reflexes may occur in normal individuals, though more especially in neuropathic persons, those due to intellectual processes may be held as pertaining almost exclusively to the insane, and can therefore be considered as genuine psychopathic phenomena”.

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H. M. BANNISTER.

ON THE TOXIC AND BACTERICIDE ACTION OF THE SERUM OF THE BLOOD OF THE INSANE.—D’Abundo found that the blood serum of a paranoiac (tranquil) more nearly approached that of a sane individual in its toxic power than any other. During an intercurrent period of depression the toxicity was diminished, while during an excited period it was increased. In quiet melancholia the toxic power was diminished, but prolonged agitation increased it. In quiet dementia it was found constantly lessened. In progressive paresis it increased excepting in two cases, in one of which the patient was in a condition of quiet, and in the other there was a predominance of motor symptoms. In simple mania and in maniacal exaltation the toxicity is increased. After post-epileptic attacks, and especially in conditions of stupor, it was found diminished. In pellagrous insanity it was found slightly increased, or nearly normal. In two pellagrous dementes it was found notably diminished. In imbecility it was diminished, and in idiocy the results were discrepant. As regards the bactericide action it was found generally increased in insanity and especially in paresis and in mania. In was diminished in post-epileptic conditions and in depressive forms.—(*Archivio Italiano per le Malattie Nervose*, Sept., 1891.)

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H. M. BANNISTER.

EXAMINATION OF THE BLOOD OF THE INSANE.—In 15 cases of progressive paralysis Krypiakiewicz found no increase of the eosinophilous cells, and never their total absence. As a rule, the leucocytes were increased in number. The same results were obtained in cases of secondary dementia. In a case of acute climacteric insanity with sexual delusions, an increase of the eosinophilous cells was found (13 to 15%). The same increase was found in the blood of a male with sexual delusions. No abnormality was found in primary insanity. The red corpuscles varied very much in size and hæmoglobin contents. K. found the hæmoglobin greatly deficient, as well as great variation in the size of the

corpuscles, and pronounced poikilocytosis. These changes were most marked where secondary dementia developed rapidly in the wake of an acute and stormy primary insanity. The anæmia seemed so proportional to the acuteness of the disease that the author believes it to be of prognostic importance.—(*Wien. Med. Presse*, No. 10, 1892.)

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G. J. KAUMHEIMER.

MORTALITY AMONG PARETIC DEMENTS.—In the report of his sanitarium Obersteiner states that he has long noticed that the most paretics die during cold weather. Examination of the records of 16 years show that the most deaths among this class of patients occur during January and February, while among all others the maximum death-rate occurs in August. He attributes this to the vasomotor paralysis present in this disease, which prevents a proper adjustment of the circulation and renders the patients much more liable to the deleterious effects of changes of temperature.—(*Wien. Med. Presse*, No. 48, 1892.)

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G. J. KAUMHEIMER.

TRAUMATISM AS A CAUSE OF INSANITY.—Gonzales has examined over 36,000 clinical histories of patients contained in the archives of the Manicomio of Milan with the view of determining whether there is such a form as traumatic insanity, or whether, as is held by Oppenheim, the psychic disturbances following traumatism only exceptionally present the characters of a special psychosis, in the stricter sense of the term. He found 23 females, 6 still living, and 102 men, 23 of whom were still under treatment. In 28 cases there was an heredity, in 97, none. The prevalent forms of injuries were falls on the head, or simply a fall, kicks from horses and blows. In both sexes the consequences were epilepsy, melancholia, dementia, mania, imbecility and moral insanity. The psychic phenomena appeared in some cases a few days after the injury, and in others their first appearance varied from a few months to a few years. Hallucinations of sight and hearing were not infrequent, and a change of character and disposition was one of the most constant features. Persecutory delusions were generally met with; it was noted that the epileptic form of insanity appears some little time after the injury; that at present the injuries of the head with psychic symptoms following are more frequent than in the past; that the male sex is rather more exposed to this form

than the female, but that in the latter the mental symptoms appear more quickly; and, finally, that traumatic insanity may be accepted in the same sense as we speak of pellagrous, alcoholic or syphilitic insanity. Taking into account that trephining is not the most serious operation in itself, the author hopes that we may yet find some means in surgery of meeting the disorder, especially in its epileptic form. Frigerio, on the other hand, in a communication on the psychosis following traumatism, holds that there is nothing in the clinical symptoms, the progress, or the pathological anatomy of these cases, to justify the recognition of any special form of insanity due to traumatism. As regards surgical therapeutics in these cases, he thinks it of doubtful advantage in asylums, as the cases usually come too late to be treated with any prospect of success.—(*Archivio Italiano per le Malattie Nervose*, Nov., 1891.)

THE RELATIONS BETWEEN GOITRE AND INSANITY.—Marzocchi and Antonini have examined large numbers of goitre cases in the asylum at Bergamo and deduced the following conclusions: 1. Subjects of goitre become insane about nine times as frequently as normal individuals. 2. Not only the frenasthenic types of insanity, but, in general, the degenerative and puerperal forms predominate in the goitrous cases. 3. Recovery is observed in about equal proportions in both goitrous and normal individuals affected with curable forms of insanity, nor is there any special difference in the relative duration of the disease; the proportion of deaths is somewhat greater in the non-goitrous subjects. 4. The goitrous insane present a great number of weak-minded individuals, but the predisposition to insanity is altogether individual and only indirectly due to the goitre. The author has examined the blood of the patients of both classes and found that in the goitrous the richness in red globules of the blood was greater than the normal average. There was no appreciable difference as regards the white globules. The conclusions from the examinations of the urine are as follows: 1. That there is no notable or constant difference as regards the proportion of urea between the non-goitrous and the goitrous cases. From the results obtained the authors conclude that the quantity of urea in proportion to the weight of the body is greater in females than in males. 2. The quantity of phosphoric acid is greater in non-goitrous males, while the reverse is the case

with females. In the latter, also, the quantity of phosphoric acid, like that of urea, is proportionately greater. 3. The relation between the urea and phosphoric acid was, in the two series examined, more marked than is normally the case, and there were well marked individual variations. In general, it was most marked in non-goitrous males, while with females the reverse was the case. From their investigations the authors are led to conclude that the thyroid has a direct action upon the central nervous system, and that it is not to be considered as essentially a hematopoietic organ.—(*Archivio Italiano per le Malattie Nervose*, Nov., 1891.)

H. M. BANNISTER.

THE NERVOUS AND MENTAL PHENOMENA AND SEQUELÆ OF INFLUENZA.—Dr. Charles K. Mills says the prominence of nervous and mental phenomena has been a striking feature of the recent epidemics of influenza. The briefest consideration of the subject brings forcibly to mind that all diseases of infectious or toxic origin may involve any, or all, parts of the nervous system with a result that will be proportionate—first, to the virulence of the infecting agent; and second, to the resistance of the individual. He believes, as does Church, that the infection of influenza has a marked action upon the nervous system, which may give rise to immediate acute manifestations, or to remote and persistent conditions; and that, in the predisposed, grippe is competent to cause marked excitement, or great depression of the motor, sensory and mental nervous apparatus. He thinks no single affection of the nervous system has been so common during and after influenza, and particularly as a sequela, as neuritis. He says almost every variety of neuritis, as regards location and diffusion, has come under his personal notice. In a few instances the convulsive habit has been established and the patients have remained up to the time of report as cases of epilepsy. Hystero-epilepsy and other grave hysterical phenomena have been initiated by an attack of influenza. The following conclusions compass much that is valuable with reference to the relations between influenza and the psychoses. Reported as conclusions arrived at by Dr. Ledy: "1. Influenza, like other febrile affections, may establish a psychopathy. 2. Insanity may develop at various periods of the attack. 3. Influenza may induce any form of insanity. 4. No specific symptoms are manifested. 5. The rôle of influ-

enza in the causation of insanity is a variable one. 6. Influenza may be a predisposing or exciting cause. 7. In all cases there is some acquired or inherited predisposition. 8. The insanity is the result of altered brain-nutrition, possibly toxic. 9. The onset of the insanity is often sudden and bears no relation to the severity of the attack of influenza. 10. The curability depends upon general rather than upon special conditions. 11. The insane are less disposed to influenza than are the sane. 12. In rare instances, influenza has cured psychoses. 13. The insane may have mental remissions during influenza. 14. There is no special indication in treatment. 15. Influenza may lead to crimes and to medico-legal issues." He can endorse from experience almost everyone of these conclusions. With reference to the statement that no specific symptoms are manifested, it should be said, however, that while this in a general sense is true, the most frequent type is a form of melancholia, although active insanity has been observed at the onset of influenza and during its height, but more particularly during its period of decline and convalescence.—(*Medical News*, Jan. 30, 1892.)

B. M. CAPLES.

MENTAL DERANGEMENT OBSERVED IN MULTIPLE NEURITIS, ESPECIALLY THAT OF ALCOHOLIC ORIGIN.—The *New York Med. Jour.* of Feb. 13, has an extract of an article read by Dr. E. D. Fisher, entitled as above, in which he said that loss of time and place during the illness was especially important as a symptom. The patient was conscious of experiences which occurred until his illness began, but from that period until his recovery all was a blank to him. The disturbance of function was most manifest in the upper extremities, and was derived from lesion of the association fibers of the brain. The disease might continue for months, improvement in the peripheral nerves and mental condition taking place and recovery resulting eventually. The disease occurred not only in those who had long been addicted to alcoholic excesses, but in moderate drinkers as well.—(*See several articles in this Journal*, Vol. I.)

B. M. CAPLES.

ALCOHOLISM.—The following is taken from an article by Dr. Sonderegger: "We should have a more definite conception of the term alcoholism. Popular opinion too often confines it to delirium tremens. This, however, is an acute disease whose treatment properly belongs in a general hos-

pital rather than in an insane asylum. Periodic drinkers should be included. They are people, ordinarily temperate, who at intervals go on debauches lasting for several days; then they try to reform, but without success. This is a disease of the brain with occasional attacks of insanity, and the drunkenness is the effect, not the cause of the disease. Belonging to the same class are those mental wrecks seen everywhere who have become insane from over indulgence in alcohol. In the first stages they belong in an insane hospital; later, in an institution for the care of incurables. We also include those habitual drinkers, who, if they are not in some penitentiary as the result of crime, spend the greater part of their time under restraint. These are usually incurable and there is practically no hope of improvement. For these cases we need no inebriate hospitals, but we may blame ourselves that we have permitted them to progress so far. We must make provision for the incipient cases of alcoholism. These are often worthy people whose misfortunes should rouse our sympathies. They do not deserve to be treated and punished like criminals, and, if properly cared for, they may be kept from becoming burdens to the community. In more or less time, alcohol gains complete control of the fate of its victim. Pathological changes take place in the brain which are no less important than in the palsies of lead poisoning. As the poisoned painter is unable to extend his hands, so is the drunkard unable to carry into execution his paralyzed resolutions. At first the world does not recognize his disease, but in his family terrible scenes are enacted. He becomes abusive and wife and children suffer from his brutality. When this stage is reached there is little hope of permanent cure. The changes in the brain are too great to permit of a return to the normal. Punishment of drunkenness by restraint would be laughable were it not so sad. In the periodic cases it is unnecessary, and in habitual drunkards it is absurd, for these cases are entirely without moral strength. It would be just as logical to punish epileptics for their attacks. The law does not attempt to reform these incurable cases. It applies chiefly to incipient cases and treats them neither as rascals, nor as criminals, but as patients, who cannot help themselves, but can yet be saved by proper care. This view is not new. Ulpian, the father of the Pandects, said: 'Drunkenness is a disease.'—Karl Zinn, Eberswalde, *Allgemeine Zeitschrift für Psych.*, 1892.)

## THERAPEUTICS.

SODIC-GOLD CHLORIDE IN PARETIC DEMENTIA. — Drs. Boubila, Hadjes and Cousa (*Ann. Medico-Psych.*, Mch.-April, 1892) claim that the use of sodic-gold chloride (in beginning doses of two milligrams, increased in equal proportions daily for fifteen days until a maximum dose of one centigram is reached) has decided advantages. No untoward effects, like the auric fever, have been observed. The blood corpuscles and weight increase, but dynamometric tests are valueless. The drug acts most in increasing frequency and number of remissions in the early stage, and in retarding the end in the period of decline. They are inclined to refer this property of sodic-gold chloride to its alterative action.

J. G. KIERNAN.

TRIONAL AND TETRONAL.—Dr. Ernst Schultze (*Therap. Monatsh.*, No. 10) reports on the use of these congeners of sulfonal in 76 cases in asylum practice. In one case of light mania and two cases of paresis, trional was given for prolonged insomnia with good effect. In the other cases in which trional was given it was the object to produce, by a single dose, sedation in patients noisy at night, but it only succeeded in the milder cases. Tetronal did not act as well and often required an evening dose of 3 to 4 gms. When sleep was not secured the patients were not so noisy. In six cases a morning and evening dose of 2 gms. was given, the patients becoming less noisy by day and often sleeping at night. In a recent case of mania, a dose of 2 gms. of trional twice daily seemed to modify the course favorably. The same chemical had a good effect in most of the cases of paranoia and melancholia in which it was given. In 4 cases of insomnia in mentally healthy persons, 1 gm. of trional was usually sufficient to produce sleep. Trional acted in 3 cases in which sulfonal had no effect. In one case sulfonal produced headache, which did not follow the use of trional. Trional seems to act quicker than sulfonal but both it and tetronal have the disadvantage of a bitter taste. Schultze believes trional to be equal to sulfonal, acting more promptly and not being followed by unpleasant sequelæ.—(*Wien. Med. Presse*, No. 48, 1891.)

G. J. KAUMHEIMER.

SUBCONSCIOUS PAIN.—Dr. M. Allen Starr in a clinical lecture upon this subject showed a young woman, nineteen years

of age, who suffered from pain in the arms. Concerning the differential diagnosis it was found that the pain existed in both arms, which excluded neuralgia; its distribution excluded affection of the nerve trunks, and the absence of tenderness excluded neuritis; tabes was excluded on account of absence of characteristic symptoms and the character of the pain. Spinal meningitis was excluded because the pain was not referred to definite areas of the skin, and there were no fixed positions of the arms and hands, and no stiffness of the neck; there was no tumor of the cord as there was no evidence of pressure. Brain lesion was excluded because of its symmetrical character, and because pain, except in the head, is not produced by brain lesion, nor could it be due to disease of the bones nor to rheumatism. The only conclusion, then, must be, that it is hysterical. Referring to the phenomena of consciousness it was shown that many things may occupy consciousness at once—some being permanent, others being just within the range of consciousness. In a case of this kind, the pain, while it is a delusion, is distinct to her though it is of purely internal mental origin, and is like the hallucinations of delirium. To call it hysterical, or imaginary, does not explain it and gives no relief to the patient. This condition, therefore, the lecturer calls "subconscious pain." The only way to reach this form of subconsciousness is to approach the person under circumstances when the ordinary higher consciousness is suspended, that is, to influence the person during hypnotic sleep. In the case under consideration the lecturer hypnotized the patient repeatedly, and while in this state informed her that she would be free from pain in a certain length of time. By this means her subconscious states were reached and influenced—this influence passing over into the conscious state.—(*International Clinics*, Jan., 1892.)

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**ELECTROTHERAPEUTICS AND SUGGESTION THERAPEUTICS.**—Möbius has thrown a bomb into the camp of the German electrotherapeutists, in the shape of five theses in which he denies very broadly that electricity has any curative qualities per se. He claims that in 80 % of all cases in which its action seems beneficial, this is due to its psychical, not its physical influence. Eulenberg (*Berlin. Klin. Wochenschr.*, Nos. 8 and 9, 1892) has undertaken to answer M.'s objections. In regard to the first point, that it has not been

proven that electricity has a curative action upon organic paralysis, and that paralyses which improve under electricity would do so without it, E. points out that the recovery would be slower and not so complete, and asks whether the results obtained in paralyzed animals are due to suggestion. M.'s second and third theses are: that many functional troubles are relieved by electricity and also by suggestion, ergo: electricity acts by influencing the mind only. Eulenberg points out that these troubles are also relieved by morphine, atropine, bromides or arsenic, and asks whether these, too, act psychically, as well as massage and hydro-therapy. The fifth thesis declares that the extreme variation in action of electricity, both galvanic and faradic, can only be explained by assuming that it acts by influencing the mind of the patient. E. points out that we are dealing with vital processes and not with dead material, and that we cannot predict the action of such well-known drugs as morphine or chloral in all cases. While combating M.'s heresy in regard to the action of electricity, Eulenberg admits that M. has done a good work in pointing out the uses and benefits of psychotherapy, and calls attention to the facts that electricity, as administered by the non-expert physician, is liable to be the failure that M. has described, and that general knowledge of its therapeutic application has not kept pace with the distribution and improvement of the electric armamentarium.

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G. J. KAUMHEIMER.

THE TREATMENT OF NERVOUS DISEASES BY SUGGESTION.—Over one-third (155) out of 360 patients seen by Berillon in his clinic were hysterical. He has had good results from hypnotic suggestion in all but a small number, and believes it to be indicated in: 1. The spasmodic attacks of grand hysteria and the paralysis and other troubles resulting therefrom. 2. In cases of monosymptomatic hysteria. 3. Against the various ailments of common hysteria (neurasthenia?). 4. In hysterical mental disturbance. In reply to the objection that the method influences the symptoms only, he states that it causes the disappearance of all the symptoms which justify the diagnosis hysteria, permanently. In chorea of all types (15 cases) 4 to 8 seances are necessary. It is advisable to put the patient through systematic gymnastic movements during hypnosis. In 5 cases of advanced paralysis agitans, tremor ceased during the hypnotic sleep.

4 out of 20 cases of epilepsy were cured by this method. In 6 others temporary improvement resulted. Berillon is of the opinion that suggestion, very perseveringly carried out, will improve the condition of the epileptic in all cases. Cases of local asphyxia yield readily. Three cases of somnambulism recovered after 1, 3 and 4 sittings respectively. In fact, there does not seem to be any disease of the nervous system which the author does not believe to be curable by this method. An aphasia of 3 years duration yielded to 4 seances. Several cases of locomotor ataxia, and others of hemi- and paraplegia and myelitis have been markedly improved. Neuralgias and neurasthenias vanish in most cases. Mental diseases, not referable to hysteria, are also amenable to this remedy. A patient who had refused food for 23 years ate voluntarily after one sitting (!!). Three cases of dipsomania, five of morphinism and one of perverse sexual impulse were also relieved.—(*Wien. Med. Wochens.*, No. 4, 1892.)

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G. J. KAUMHEIMER.

A PLEA FOR SUGGESTION THERAPEUTICS. — Dr. Wm. Mosing makes a plea for the proper utilization and scientific investigation of hypnotic suggestion as a therapeutic measure and relates two cases. Case one was a boy of 13, who after the subsidence of an acute rheumatism became unable to walk, or indeed to make the least voluntary use of the legs. Attempts at walking or massage provoked a tonic spasm of the muscles of the entire lower extremities, and even of the trunk. The boy was healthy in all other respects. After hypnotization, the ability to walk was suggested and the suggestion carried out. It was then suggested that on awakening he would go to the door and meet the family physician, which he did. The improvement was permanent. Case two is not so much to the point, and is referred by Mosing to autosuggestion. A girl of 9 began to complain of pains in the limbs, which soon became completely paralyzed. On account of the increased reflexes, spots of reduced sensation and reduced faradic excitability, the diagnosis of diffuse myelitis was entertained. After one and a half years the child was severely frightened by the horses attached to her carriage running away. On returning home she asked to be put on her feet and was found to be able to walk a few steps. In a few days she was able to take extensive walks. The attending physician

then fell back on the diagnosis of an angio-spastic anæmia of the cord due to a neuropathic disposition. He protests against the negation of Fuchs and others, who discredit hypnotism without investigation and thus tend to throw its practice into the hands of laymen.—(*Wien. Med. Presse*, No. 2, 1892.)

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G. J. KAUMBEIMER.

NEW CONTRIBUTIONS TO THE THERAPY OF MALE IMPTENCE.—Dr. Victor v. Gyurkovechky has seen improvement in five cases of paralytic imptence, although only temporarily, from suspension. In three cases of sexual neurasthenia complete and satisfactory cures resulted. Suspension of healthy males was always followed by increased sexual desire. He also believes that hypnotism will be found a powerful therapeutic agent in the treatment of onanism, spermatorrhœa and various forms of imptence, and relates several cases to fortify his position. He also banished troublesome and constant erotic dreams in a single lady of 20 by this means, at the sixth seance.—(*Wien. Med. Presse*, No. 47, 1891.)

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G. J. KAUMHEIMER.

HYPNOTISM IN THE PSYCHOSES.—Dr. J. Luys states (*Jour. de Med. de Paris*, Mch. 20, 1892) that in the acute periods of insanity, in lucid intervals, and in latent hysteria, nothing is better than hypnotism. Certain paretic dements with quiet hypomania are fascinated and calmed by a bright object. Rotatory mirrors calm and soothe them so that they fall asleep. They awaken from the artificial slumber refreshed and invigorated mentally and physically. In acute hysterical hallucinatory insanity in young girls, the patients are plunged rapidly into slumber, and such slumbers decrease the period of convalescence.

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J. G. KIERNAN.

## MEDICO LEGAL.

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ILLEGITIMACY, INSANITY AND CRIME.—Verga (*Archivio Italiano*, Sept. and Nov., 1891) concludes an interesting medico-legal study of the relations of one of the manifestations of social vice, the exposing of children to the care of

the public to insanity and crime, with the following general conclusions, which sum up the results of his investigations. "1. Illegitimacy is an effect of human degeneracy, from which is derived crime and insanity. 2. There may be also occasional causes in the unfortunate conditions surrounding the foundling. 3. The mental condition of the foundlings is ordinarily defective and turbulent, analogous to that of the majority of criminals and candidates for insanity. 4. Foundlings furnish a larger proportion of criminals and insane, as compared with those of legitimate birth. 5. Crime is more prevalent among foundlings than insanity, as they are descendants of persons in whom exists a certain mental weakness and obtusity, or perversion of the moral sense, rather than actual mental disturbance. 6. The types of insanity in the illegitimate pertain more to the frenas-thenias and congenital forms than to the acquired ones. 7. The descendants of foundlings furnish a notable contingent of the insane. 8. Sometimes the nature of the delusions of the foundling insane pertain to their unfortunate condition and reveal their origin. They are the result of the mortification of not knowing their own parents, of the uncertainty and the hope of some day discovering them, and of dissatisfaction at finding themselves in an irregular position before themselves and before society."

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H. M. BANNISTER.

LEGAL RESTRAINT OF THE LIQUOR TRAFFIC.—The Society of German Alienists at Weimar at its yearly meeting adopted the following resolutions: "The Society of German Alienists welcomes the passage of a law which aims to prevent the evils of the liquor traffic. While not expressing an opinion on those provisions of the law outside of the province of the medical profession, the society resolves: 1. The punishment of drunkenness as such does not seem right. The confinement of habitual drunkards in inebriate asylums should not be done under the criminal code. 2. In the appointment of a guardian for the drunkard the same legal procedure should be adopted as in the case of the insane and the expert testimony of one or more physicians should always be required. 3. Hospitals for the care of drunkards ought to be under the management of skilled physicians and should, like insane asylums, be under the supervision of the government."—(*Allgemeine Zeitschrift für Psych.*, 1892.)

JOS. KAHN.

## REVIEWS, NEW BOOKS, ETC.

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DER HYPNOTISMUS. SEINE PSYCHO-PHYSIOLOGISCHE, MEDICINISCHE, STRAFRECHTLICHE BEDEUTUNG UND SEINE HANDHABUNG.—*Von Dr. August Forel, Professor der Psychiatrie und Director der Kantonalen Irrenanstalt in Zürich.* Second revised and rewritten edition. Stuttgart, Germany: Ferdinand Enke, 1891: 172 pages: 4 marks.—The genial Swiss psychiatrist herewith presents this second edition of his excellent work. The principal part of the work originally appeared in the journal, *Zeitschrift für die gesammte Strafwissenschaft*, under the title, "Der Hypnotismus und seine Strafrechtliche Bedeutung." At the earnest desire of many that his work be made more accessible to the profession, the author put forth his first edition. The rapidity with which this was exhausted speaks for the favorable reception which his work was given. This, the second edition, has been revised and rewritten and much which is new incorporated, in order to bring the work up to the rapid advances made in this department of medicine. The writer first presents a psychological introduction, in order to prepare the reader with a clear understanding of the basis of the doctrine of suggestion, so much misunderstood by many. Since the appearance of the first edition there have been written several important monographs on hypnotism: Moll's work, "Der Hypnotismus" has undergone a second edition; Bernheim's work, "Hypnotisme: Suggestion: Psycho-Thérapie." *Études Nouvelles*, Paris, 1891; Doin Wetterstrand's work, "Der Hypnotismus und seine Anwendung in der Praktischen Medicin," Vienna, 1891; Hack Tucke's work, "Geist und Körper," translated by Kornfeld, Jena, 1891; as well as several others. The work is divided into twelve chapters: 1. Consciousness; 2. Relation of Nervous Activity to the Nervous Substance and to States of Consciousness; 3. General Remarks on Hypnotism; 4. Suggestion and its Relations, Interrelations and Resultant Phenomena; 5. Suggestion and Mental Diseases; 6. Consciousness and Suggestion; 7. Hints for Psychotherapeutic Practice; 8. Examples of Cures by Suggestion; A Case of Spontaneous Somnambulism; 9. Suggestion and its Relation to Medicine and Charlatanry; 10. Forensic Importance of Suggestion; 11. Suggestion and Hypnosis in Animals; and 12, an appendix containing the Observations and Experiences of Two Hypnotized Physi-

cians, one Bleuler, on the Psychology of Hypnosis and a Narrative of an Autohypnotic Experience undergone by the writer himself in 1878; these are followed by some conclusive remarks. The work is one which every one interested in this subject should possess. The style in which it is written, that combination of the romantic of the French and the accuracy of the Germans for which the Swiss are noted, makes it interesting from beginning to end. It will, no doubt, see many more editions.

FRANK H. PRITCHARD.

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A MANUAL OF DISEASES OF THE NERVOUS SYSTEM.—By W. R. Gowers, M. D., F. R. C. P., F. R. S., consulting physician to University College Hospital; physician to the National Hospital for the Paralyzed and Epileptic. Volume I, Diseases of the Nerves and Spinal Cord, with one hundred and eighty illustrations including three hundred and seventy figures. Philadelphia, P. Blakiston, Son & Co.

That Dr. Gowers is the author of a book is sufficient guarantee that it is a valuable one. The first edition of his work, "On Diseases of the Nervous System," has been generally regarded as the best work upon the subject, but the progress of the specialty has demanded a new edition, which Dr. Gowers has now partly supplied in the first volume of his great work. In addition to enlargements of chapters contained in the former edition, this one includes entirely new sections on Multiple Neuritis, Beri-Beri, Brachial Neuritis, Senile Paraplegia, Morvan's Disease and the Peroneal Type of Muscular Atrophy. This volume contains over six hundred pages. The introduction is devoted to the classification of nervous diseases, which, according to Dr. Gowers, is as follows: 1. Organic disease (or "coarse" organic disease), such as hemorrhage, tumor, softening. 2. Structural disease; such as most forms of sclerosis. 3. Nutritional disease; such as paralysis of the insane, paralysis agitans. 4. Functional disease; such as reflex convulsions, and many forms of hysteria. The part devoted to General Symptomatology is considerably enlarged and is valuable, furnishing an excellent introduction to the general knowledge of the diseases of the nervous system. The chapter on Multiple Neuritis is elaborate, comprising over fifty pages. Dr. Gowers holds that syphilitic neuritis is mainly an affection of single nerves, and that an acute multiple neuritis is probably never

syphilitic. He says, however, that we may see a true parenchymatous syphilitic polyneuritis in the tabetic form in which sensory fibers are affected at the periphery. The chapter treating of the Anatomy and Functions of the Cord and the General Symptoms and Pathology of its Diseases, is the best contained in any text book. Dr. Gowers adopts the view that Landry's paralysis is due to a toxic influence, the result of the preceding growth of organisms. This idea receives support from the discovery that there is commonly acute swelling of the spleen and enlargement of the lymphatic glands in this disease. The pathological process may be peripheral, or it may be central, or it may be a combination. He treats of Syringomyelia and Morvan's Disease under a separate head, and holds that the latter consists in a combination of the former and peripheral neuritis of the extremities. We believe this to be the most thorough and reliable work on diseases of the spinal cord that has ever been written. It is concise in statement, though full in description; accurate, reliable, and written in a beautifully clear and simple style. No practitioner can afford to be without it. We are informed by the publishers, P. Blakiston, Son & Co., that this second edition of Gowers has been recently published in German by Cohen of Bonn, and that the Italian translation is nearly ready.

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DISEASES OF THE NERVOUS SYSTEM, by J. A. Ormerod, M. D., Oxon., F. R. C. P., Lond. Medical Register and Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital; physician to the National Hospital for Paralyzed and Epileptic, and to the City of London Hospital for Diseases of the Chest, Victoria Park, with numerous illustrations. P. Blakiston, Son & Co., Philadelphia.

This excellent little book, which is an attempt to explain the mechanism of nervous diseases, has come to hand too late for review in this number. We will notice it in the next issue.

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BACTERIOLOGICAL DIAGNOSIS.—Tabular aids for use in practical work by James Eisenberg, Ph. D., M. D., Vienna. Translated and augmented with the permission of the author from the second German edition by Norval H. Pierce, M. D., surgeon to the out-door department of Michael Reese Hospital; assistant to the Surgical Clinic, College of Physicians and Surgeons, Chicago, Ill. The F. A.

Davis Co., publishers, Philadelphia and London. This valuable book contains a description of all varieties of bacteria arranged in tabular form. In it one gets the milk from the bacteriological cocoanut without any waste of time. All the principal characteristics of each variety are given, so that a few moments' reading will give one all the principle points desired. That it is rapidly passing through new editions is sufficient guarantee of its value and of its appreciation by the profession.

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Electrotherapeutic Topics.—Transactions of the Electrotherapeutic Congress at Frankfort, Sept. 27, 1891.

Schultze.—On the Therapeutic Action of Electricity in Diseases of the Nerves and Muscles.

Griesinger.—Pathology and Therapeutics of the Diseases of the Mind, 5th edition, by Levinstein-Schlegel.

Sperling.—Studies in Electro-Therapy.

Schultze.—Neuroses and Neuro-Psychoses following Traumatism. (*Samml. Klin. Vortr.* New series, No. 14.)

Meynert.—Popular Lectures on the Structure and Functions of the Brain.

Obersteiner.—Introduction to the Study of the Anatomy of the Healthy and Diseased Central Nervous System. Second edition.

Adamkiewicz.—Topographical Plates of the Human Brain (for use upon the living subject).

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## PAMPHLETS AND REPRINTS.

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The Technique of Cerebral Surgery.—By G. Wiley Broome, M. D.

The Treatment of Epilepsy.—By Guy Hinsdale, M. D.

Triple Personality.—By Irving C. Rosse, A. M., M. D., F. R. G. S.

Athetosis with Clinical Cases.—By Archibald Church, M. D.

Twenty-first Annual Report of the Managers of the Buffalo State Hospital, for the Year 1891.—James B. Lyon, Albany, State Printer.

Subcortical Hemorrhage Cyst beneath the Arm and Leg Areas.—By Charles K. Mills, M. D.

An Ephemeris of Materia Medica, Pharmacy, Therapeu-

tics and Collateral Information.—By Edward B. Squibb, M. D., Edward H. Squibb, S. B., M. D., and Charles F. Squibb, A. B.

A Case of Acute Spinal Paralysis; Death on the Twelfth Day; Autopsy Showing Transverse Cervical Myelitis.—By Wharton Sinckler, M. D., with a Report of the Microscopical Examination by C. W. Burr, M. D.

A Case of Traumatic Myelitis in the Lower Dorsal Region.—By Ira VanGieson, M. D.

A Contribution to Spinal-Cord Surgery.—By Archibald Church, M. D. and D. W. Eisendrath, M. D.

Recent Observations in the Etiology and Treatment of Migraine.—By Wharton Sinckler, M. D.

Insanity as Related to Civilization.—By Orpheus Everets, M. D.

Drug Habituation.—By Lucius W. Baker, M. D.

Eighteenth Annual Report of the Superintendent of the Cincinnati Sanitarium, for the Year ending Nov. 30, 1891.

Gastrostomy.—Senn.

Two Cases of Trephining for Traumatic Epilepsy.—By Philip Coombs Knapp, A. M., M. D., and Abner Post, M. D.

Astasia-Abasia.—By Philip Coombs Knapp, A. M., M. D.

A Case of Tumor of the Cerebellum in which Trephining was done for the Relief of Increased Intra-Cranial Pressure.—By Philip Coombs Knapp, A. M., M. D.

Accidents from the Electric Current.—By Philip Coombs Knapp, A. M., M. D.

Nervo-Vascular Disturbances in Unacclimated Persons in Colorado.—By J. T. Eskridge, M. D.

A Case of Fracture of the Twelfth Dorsal Vertebra, followed by Injury to the Spinal and Sympathetic Nerve-Supply of the Bowel in the Region of the Ileocæcal Valve.—By J. T. Eskridge, M. D.

Ataxia.—By J. T. Eskridge, M. D.

Tumor of the Brain.—By J. T. Eskridge, M. D.

Some Points in the Diagnosis and Nature of Certain Functional and Organic Nervous Diseases.—By J. T. Eskridge, M. D.

Subacute Recurrent Multiple Neuritis.—By J. T. Eskridge, M. D.

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#### MISCELLANEOUS.

The Maple Lodge Sanitarium at Oshkosh, Wis., recently founded by Dr. C. W. Oviatt, seems to be doing excellent

work. In the doctor's annual report we notice that he has performed one hundred and nineteen operations, of which nineteen were abdominal sections. Three of these were private patients of Dr. Senn of Chicago, who operated upon them at the Sanitarium. We congratulate Dr. Oviatt upon his success.

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Dr. H. M. Bannister has resigned as first assistant physician of the Eastern Illinois Asylum for the Insane, Kankakee. He will remain at his old post until June 1.

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Dr. Senn has been elected president of the American Surgical Association.

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We have received from the Dios Chemical Co., of St. Louis, a lithograph illustration of cerebral localization according to the views of Horsley, Beever and Schafer. They inform us that a copy of this illustration will be mailed free of charge to any physician on application.

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In writing to the Dios Chemical Co., J. A. Batte, editor of *The Memphis Medical Monthly*, gives his opinion of Neurosine as follows: "I take the opportunity to express my gratification at the happy results obtained from the use of Neurosine. It is certainly the best neuralgic remedy I have used and will ever be found among my prescriptions. I have tried it in two cases of trifacial neuralgia, after having tried some of our most powerful remedies, such as belladonna, opiates, quinine, gelsemium, arsenic, etc. None acted so well as Neurosine."

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We desire to call the attention of our readers to the new advertisement of Reed & Carnrick, on page 347. This firm has spared neither labor nor expense to perfect their Infant Foods in keeping qualities by sterilization and by placing them in hermetically sealed containers. They claim that Lacto-Preparata, an all-milk food, for young infants, and Carnrick's Food, composed of half Lacto-Preparata and half dextrinized wheat, for use after six months of age, have now practically reached perfection in keeping qualities, and that they are the only Infant Foods in the market that will alone thoroughly nourish a child during the nursing period. Their Lacto-Preparata almost perfectly resembles human milk in character, composition and taste.

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